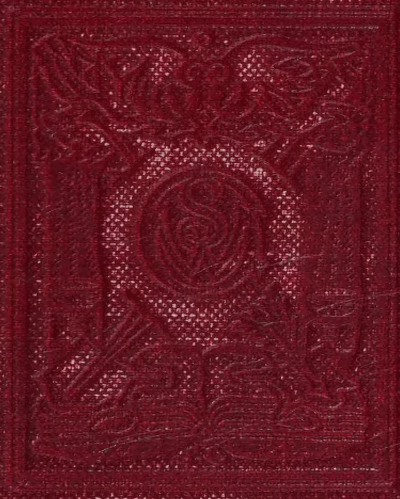


REFERENCE LIBRARY

OF THE

State Normal School

WHITEWATER, WISCONSIN

No. 13035

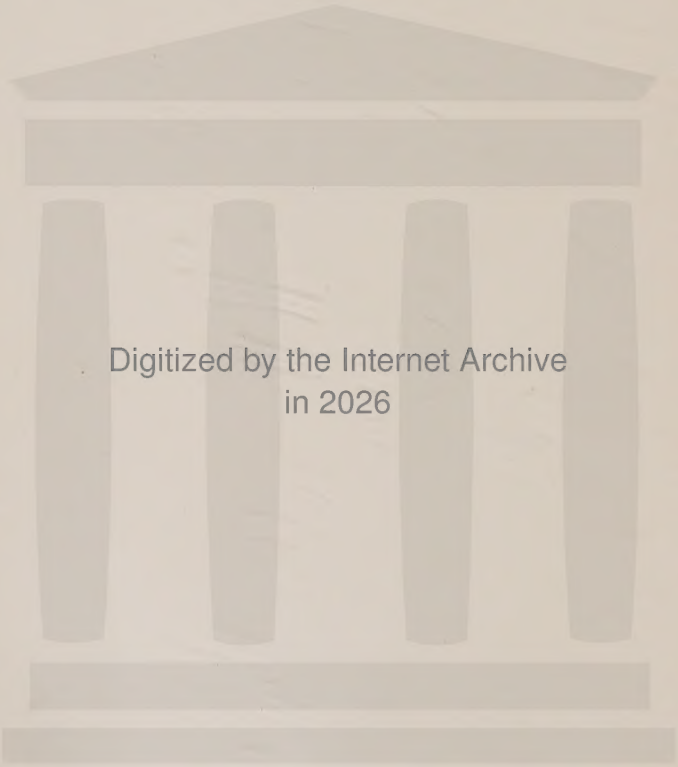
Bought 12 Mo 1917

Students of the Normal School are allowed to draw the books for use at their rooms on the following conditions:

1. No book must be taken from the library until it has been properly charged to the student drawing it.

2. Bound magazines, most Reference books and Reserved books may be taken from the library at 4 p. m. and must be returned at 8 a. m. the following day.

3. All other books may be kept for two weeks.


Digitized by the Internet Archive
in 2026

https://archive.org/details/accountingintheo0000geor

ACCOUNTING

IN

THEORY AND PRACTICE

RULED EXERCISE BOOKS

FOR USE IN WORKING OUT THE EXAMPLES AND EXERCISES MAY BE OBTAINED FROM THE PUBLISHERS, PRICE 6D. EACH.

No. 1. Ledger Exercise Book.
,, 2. Day Book, Invoice Book, and Journal Exercise Book.

CARD OF LOGARITHMS AND ANTI-LOGARITHMS

TO FOUR PLACES MAY ALSO BE HAD, PRICE 1S.

ACCOUNTING

IN

THEORY AND PRACTICE

BY

GEORGE LISLE, C.A., F.F.A.

FORMERLY LECTURER ON BOOK-KEEPING AND THE PRINCIPLES OF ACCOUNTING AT THE HERIOT-WATT COLLEGE, EDINBURGH; AUTHOR OF 'BOOK-KEEPING AND FORMS OF ACCOUNTS FOR COUNTY COUNCILS,' CHAMBERS'S 'ELEMENTARY BOOK-KEEPING,' ETC., AND EDITOR OF THE ENCYCLOPÆDIA OF ACCOUNTING

NEW EDITION REVISED AND ENLARGED

EDINBURGH AND LONDON

WILLIAM GREEN & SONS

1909

HF
5625
L77
1909

LIBRARY
STATE NORMAL SCHOOL
WHITEWATER, WIS.

All rights reserved

PREFACE

THE object with which this book has been prepared is to supply the demand for a text-book dealing with the principles of advanced book-keeping and accounting. Accounting is a progressive science, and has made great strides within recent years. The cumbrous forms and vain repetitions of the older systems of accounting are giving place to improved methods which have been evolved through the desire to have the maximum of result with the minimum expenditure of time and labour. Accountants, solicitors, investors, and all business men should be familiar with these improved methods. In fact, a knowledge of the science of accounting is of use to all who receive or pay away money, either for themselves or in trust for others, and there is no condition of life in which it will not be found of service.

An attempt has been made to define as exactly as possible the various terms used in accounting. Many of these terms are employed somewhat loosely, and this is most undesirable in a science which is an important branch of applied mathematics.

A large number of examples and exercises have been given, together with the solutions. These serve to elucidate the principles, and will at the same time enable the student to effectively test his progress.

I have to record my indebtedness to my partner, Mr. W. A. Middleton, for the great care with which he has revised the proofs.

GEO. LISLE.

5 NORTH ST. DAVID STREET,
EDINBURGH.

NOTE TO THE REVISED EDITION

THE reception accorded to the First Edition of this work renders another edition necessary, and the opportunity has been taken to revise the text thoroughly and bring it up to date.

The recent alterations on Company Law by the Acts of 1900 and 1907, and the Consolidation Act of 1908, together with the issue of a Revised Table A applicable to Joint Stock Companies involved extensive amendments on the text; and the Finance Act of 1907, which introduced radical changes in Income Tax law, entailed practically the rewriting of the chapter on Income Tax. Numerous minor alterations have also been given effect to in the endeavour to make the work thoroughly reliable.

CONTENTS

	PAGE
Accounting	1
The Business of an Accountant	3
Book-Keeping	4
Closing Entries	15
Practical Book-Keeping	22
1. The Cash Book	23
2. The Invoice Book	24
3. The Day Book	25
4. The Journal	25
5. The Ledger	26
Practical Book-Keeping further developed	32
Exercises	39
Single Entry	42
Trial Balance of Books kept by Single Entry	45
To pass from Single Entry to Double Entry	45
Profit	47
Profit and Loss Accounts	49
The Goods Account	51
Stock-Taking	52
Raw Material	53
Partially Manufactured and Completed Goods	53
Goods sold on Commission	53
Arrangement of Profit and Loss Accounts	55
Trading Account	59
Manufacturing Accounts	61
The Trial Balance	63
The Connection between the Trial Balance, Profit and Loss Account, and Balance Sheet	65
Assets	67
Liabilities	67

PAGE

CAPITAL 68

BALANCE SHEETS 69
On which side of the Balance Sheet the Assets should be placed 70
A full and fair Balance Sheet 74
Arrangement of Balance Sheets 76
The Double Account Form of Balance Sheet 79

STATEMENTS OF AFFAIRS AND STATEMENTS OF ASSETS AND LIABILITIES 82
Statement of Affairs of a Bankrupt 83
A Deficiency Account 89
Exercises 93

ACCOUNTS OF BRANCHES 95

DEPARTMENTS 98
Exercises 99

THE LEDGER, AND CLASSIFICATION OF LEDGER ACCOUNTS . 104
Ledger Accounts 105
Personal Accounts 106
Real or Property Accounts 106
Nominal Accounts 106
To balance Ledgers separately 107
To analyse the Accounts in a Ledger 109

CHECK LEDGERS 113

THE CARD OR LOOSE-LEAF SYSTEM OF KEEPING LEDGER ACCOUNTS 114
The Card System applied to a Shareholders' Ledger . . 115
Cards for Shareholders' Ledger 117

RESERVES AND RESERVE FUNDS 118
Investment Fund 119
Secret Reserves 119
Redemption Fund 120
Debenture Reserve Fund 120

SINKING FUNDS 121
Contingent Fund 121
Debenture Bond Sinking Fund 122
Colliery Sinking or Redemption Funds 128

REALISATION AND LIQUIDATION ACCOUNTS 130

CONSIGNMENT ACCOUNTS 131

JOINT ACCOUNTS 131
Exercises 132

REVENUE ACCOUNT 132

STATEMENT OF RECEIPTS AND PAYMENTS 133

INCOME AND EXPENDITURE ACCOUNT 133

PAGE

SUSPENSE ACCOUNTS 134

GOODWILL 134

DEPRECIATION 137

INSURANCE 142
Fire Insurance 143
Marine Insurance 145
Life Assurance 147
Accident and Guarantee Insurance 148

BILLS OF EXCHANGE 149

APPORTIONMENT 152
The use of Interest Tables in apportioning Sums for different periods 153
The Apportionment Act of 1870 154
Commercial Apportionments 157
Rents 160
Fore-hand Rents 163
Heritors' Assessment 164
Casualties 164
Rent Charges 164
Minister's Stipend 164
Wages and Salaries to Servants and Workmen 165
Annuities 165
Interest on Money lent 165
Dividends and Interest upon Shares and Debentures in Public Companies 166
Interim Dividends and Bonuses 166
Bonuses returned as Capital 167
Stocks and Shares bought and sold 167
Profit from Private Partnerships 169
Apportionment of Rents under the Land Clauses Act, 1845 . 169
Exceptions to Apportionment 170
Burdens and other Deductions 170
Property not producing Revenue 171
Examples of Apportionment 172
Table of Particulars necessary for apportionment of Dividends of certain Companies 174

TRUST AND EXECUTRY ACCOUNTS 175
Model Set of Trust Transactions 176
Account of Charge and Discharge of the Intromissions of Trustees 180
Trust Ledger Accounts 186
Exercises 190

PARTNERSHIP 194
Goodwill in Partnership 195
Interest on the Capital Accounts of Partners 197

PAGE

PARTNERSHIP—*Continued*
Division of Profits 205
I. Profits to be divided in proportion to each Partner's Capital 206
II. Profits to be divided in proportion to each Partner's Capital and the time such Capital has been in the Business 206
III. Profits to be divided in proportion to certain fixed Ratios 210
Assumption of a Partner 211
Dissolution of Partnership 213
Partnership Transactions worked out 219
Exercises 223

JOINT-STOCK COMPANIES' BOOKS 233
The Minute Book 233
The Application and Allotment Book 234
Register of Transfers 235
Shareholders' Ledger 235
Shareholders' Ledger, Alternative Form 235
Debenture Ledger 240
Form of Allotment Letter 241
Form of Letter of Regret 242
Form of Call Letter 243
Exercises 244
The conversion of a Private Firm into a Joint-Stock Company 248
Exercises 250

MANUFACTURERS' ACCOUNTS 252
First Method—Manufactured Goods and Finished Goods purchased kept in one Account 253
Second Method—Showing the Cost of the Goods manufactured 254
Third Method—Showing the Profit on Manufacturing and Profit on Trading separately 255
Exercises 257

COST ACCOUNTS 261
Items of Cost 263
Material 264
Labour 264
Direct and Indirect Expenses 264
Engineers' Accounts 265
Contracts not completed at date of Balance 267

TO ASCERTAIN THE PROFIT ON THE GOODS ACCOUNT WITHOUT ACTUALLY TAKING STOCK 267

TO FIND THE COST VALUE OF GOODS DESTROYED BY FIRE . . 271
Exercise 272

THE ACCOUNTS OF PROFESSIONAL AND OTHER NON-MANUFACTURING AND NON-TRADING CONCERNS 272
Exercises 273

PAGE

British Currency 277
Gold 277
Silver 277
Bronze 278
Legal Tender 278

Indian Currency 278

United States Currency 280

French Currency 281

German Currency 281

Table of Foreign Moneys 283

Foreign Currencies and their treatment in Home Accounts 285
Foreign Branches 288
Rules for the conversion of Foreign Currencies . . . 288
The treatment of Rupees in Home Accounts . . . 290
First Method—Cash Transactions only recorded in London Books 291
Second Method—All Transactions recorded and converted at rate of Exchange ruling when Transactions took place . 293
Third Method—Conversion at average rate of Exchange . 295

The Foreign Exchanges 297
Diagram 299
Mint Par 300
The Course of the Exchanges 300

Income Tax 302
Schedule A 302
Schedule B 303
Schedule C 304
Schedule D 304
Schedule E 305
Exercise 309
The Preparation of Income Tax Tables 309

Rates of Local Authorities 310

Loans repayable by Instalments 314

Redemption of Leases 322

Hire-Purchase System of acquiring Railway Waggons . 324

Investigations 329

Percentage Statements 335
First Method—Using four-place Logarithms 338
Second Method—Using Tables of Products 339
Third Method—Reducing the Divisor to a Decimal and multiplying 342

Curves and Diagrams 344

PAGE

RECONCILIATION STATEMENTS 345

THE DUTIES AND RESPONSIBILITIES OF AN AUDITOR . . . 348
First Audits 350
Cash on hand 350
Partnership Accounts 350
Companies 351
Partial Audits 352

AUDITS 353
Commercial Audits 353
Office Regulations to Prevent Fraud 353

THE AVERAGE DUE DATE 354
Exercises 356

INTEREST ON CURRENT ACCOUNTS 356
I. Using Interest Tables 357
II. By Means of Products 358

DECIMALS OF £1 363

LOGARITHMS 365

TABLE FOR FINDING THE DAYS BETWEEN TWO GIVEN DATES . 369

TABLE SHOWING DAYS AS DECIMAL FRACTIONS OF A YEAR. . 373

TABLE OF LOGARITHMS 376

ANSWERS TO EXERCISES 381

INDEX 423

ACCOUNTING

ACCOUNTING IS THE SCIENCE WHICH TREATS OF THE METHODS OF RECORDING TRANSACTIONS ENTERED INTO IN CONNECTION WITH THE PRODUCTION AND EXCHANGE OF WEALTH, AND WHICH SHOWS THEIR EFFECT UPON ITS PRODUCTION, DISTRIBUTION, AND EXCHANGE.

In the following pages an attempt has been made to provide a text-book from which may be learned the broad and fundamental principles of Accounting. These principles are general and universal in their application, and, when once grasped, may be applied to any business or financial transaction, no matter how novel or how complicated. Accounting is a branch of applied mathematics, and it is only when it is regarded as such that its principles can be applied with invariable accuracy, and will always, when so applied, bring out the correct results. The accountant is continually coming across businesses with which he is unfamiliar, but, as the principles governing all accounts are the same, and are applicable to any accounts, he is never at a loss, but shows by his manipulation of the facts and figures submitted to him that his work is independent of any particular business.

There are two main branches of the business of an accountant:—

1. His work as an accountant.
2. His work as an auditor.

The training for these two branches is almost identical, and is best acquired at the same time; but all the same

there are very clear lines of demarcation between these two divisions of the work of an accountant. The work of the accountant is largely creative, while the work of the auditor is inspective or critical. The accountant, as such, devises the method by which a set of financial transactions is to be recorded, and either himself carries out, or superintends the carrying out of, the system. It is his province to enable men by the benefit of his advice to make businesses which are already profitable even more remunerative, and to render profitable businesses which are being conducted at a loss. He ascertains the interest of an individual or the interests of many individuals in businesses or funds, and adjusts the interests of parties *inter se*, seeing that each party really gets what he is entitled to. The function of the auditor is to inspect, examine, and audit accounts which are already completed. Sometimes the two functions run into each other, as when the auditor has to write up or close the accounts of a concern. In fact, in general practice an auditor has very often to balance the books of a concern, and when books of account do not balance it is too frequently the custom to leave them over till the auditor arrives to find the error and himself complete the book-keeper's work.

The duties of an accountant include book-keeping in all its branches and applications, from the method of keeping the Postage Book or Petty Cash Book in a retail business to the elaborate and yet charmingly explicit accounts of the National Exchequer. Perhaps no better historical exemplification of the development of accounting can be found than is displayed in the improvements made within recent years in the annual accounts of the country as published by the Government. All practical accounting being based upon a thorough knowledge of book-keeping, the student, before taking up the principles of accounting, should have gone through a complete course of the study of book-keeping, either in a class under a competent teacher, or by using one of the many satisfactory hand-books which have been published on the elementary principles of book-keeping.

THE BUSINESS OF AN ACCOUNTANT

The work of accounting may be classed under the following heads:—

Mercantile and Manufacturing Accounting, which relates to the accounts of traders and manufacturers, and includes shipping.

Mining Accounting.

Financial Accounting, which includes the accounts of banks, insurance and investment companies, and building societies.

Fiduciary Accounting, which includes executry and trust work.

Public Accounting and Finance in connection with cities, towns, county councils, parish councils, school boards, and other public bodies.

Company Work, embracing investigations into businesses with the view of their being formed into companies; work as secretary, manager, director, or auditor; investigations into companies in view of their unsatisfactory position, and liquidations.

Bankruptcy Work, embracing the preparation of Statements of Affairs and the work of trustee under trust deeds and in sequestrations.

Investment and Financial Work, including the investment of money, floating loans for burghs or corporations, and obtaining loans for and financing private individuals.

Investigations into business concerns of all descriptions.

Estate and Property Work, including the factoring of property and the management of landed estates.

Arbitrations, whether as arbiter or oversman, or employed as the accountant in making investigations into accounts.

BOOK-KEEPING

BOOK-KEEPING IS THE ART OF RECORDING BUSINESS TRANSACTIONS WITH THE VIEW OF HAVING A PERMANENT RECORD OF THEM AND OF SHOWING THEIR EFFECT UPON WEALTH.

Each individual business transaction has a two-fold effect, and it may be useful to look on this effect as having a positive and also a negative character. Thus, if a merchant sells goods for £5 of cash, it is evident that the merchant's cash is increased and that his stock of goods is decreased. The effect of the transaction may thus be considered positive as regards the cash, and negative as regards the goods. As book-keeping records this two-fold effect, it is spoken of as "book-keeping by double entry." A Ledger Account is a statement showing on the one hand all the positive or increasing effects on the subject of the account, and on the other hand all the negative or decreasing effects on the subject of the account, in consequence of the transactions which have occurred during a given period. These accounts form in the aggregate the Ledger. The Ledger is thus the book showing the accounts relating to a series of business transactions, wherein these transactions are analysed and recorded so as to show the effect of each transaction individually and the effect of the transactions as a whole. The Ledger is therefore the essential book in book-keeping, and once its functions have been properly grasped the respective places occupied by all other books, and the uses of these books, will be clearly understood and appreciated. In order to illustrate the methods of book-keeping, and to show the principles upon which it is founded, a model set of business transactions are given, and have been treated in three different ways. In the first place, the transactions are treated in a purely theoretical manner; next, as they might be treated in actual practice; and lastly, as they might be treated in actual practice, with further improvements and developments. These transactions are supposed to be

spread over a year, and, although they are very simple, any one who thoroughly understands their treatment as now submitted will have acquired a competent knowledge of book-keeping.

The Transactions of William Wood, Merchant

William Wood took stock on 1st January. The following statement shows his liabilities and his assets :—

Statement of Affairs as at 1st January.

Liabilities.				*Assets.*			
Due to Jack & Co.	£300	0	0	Due by J. Collins	£800	0	0
				Goods in stock	600	0	0
				Sum in bank	150	0	0
				Cash on hand	50	0	0

His transactions throughout the year were as follows :—

Jan.	2.	Paid cash for goods purchased	£40	0	0
		Purchased goods on credit from Scott & Tait	400	0	0
		Gave Scott & Tait bill at three months	400	0	0
	5.	J. Collins settles his account for £800 by paying in cash	760	0	0
		And is allowed as discount	40	0	0
		Paid into bank	700	0	0
	7.	Paid Jack & Co., in settlement of their account for £300, cheque for	285	0	0
		They allowing as discount	15	0	0
	9.	Sold goods for cash	20	0	0
		Sold goods to J. Collins	500	0	0
		Received from J. Collins bill due in three months	500	0	0
		Discounted J. Collins's bill, and received in cash	495	0	0
		Discount charged	5	0	0
Apr.	5.	Gave cheque in payment of bill due to-day	400	0	0
June	30.	Paid for half-year's rent to this date	35	0	0
		Paid wages	100	0	0
Dec.	1.	Sold goods to W. Simpson	650	0	0

Dec. 1.	Paid to account of rent for half-year ending 31st inst.	£15	0	0
	Purchased from Jack & Co. goods on credit	490	0	0
	Gave Jack & Co. bill at three months	280	0	0
	Gave Jack & Co. cheque for	200	0	0
	They allowing as discount	10	0	0
5.	Sold goods to J. Collins	1830	0	0
7.	Purchased goods from Scott & Tait on credit	1000	0	0
	Received cash from J. Collins	1230	0	0
	Received bill from J. Collins at three months	300	0	0
8.	Paid into bank	900	0	0
	Purchased goods from Jack & Co. on credit	370	0	0
	Gave cheque to Scott & Tait as payment to account	770	0	0
31.	Paid wages to date	100	0	0
	Cash taken during year by William Wood for his own use	600	0	0
	Trial Balance to be taken at this stage.			
Dec. 31.	Value of goods on hand at this date	700	0	0
	Amount due for rent to date	20	0	0

The Transactions of William Wood, Merchant

Recorded using the Ledger only.

William Wood is supposed to have taken stock on 1st January. His object in so doing was to prepare a Statement of his Affairs as at that date. It is evident that if he wishes to keep a proper record of his business transactions, he must begin his books on 1st January by incorporating in them the exact position of his business on that date. From his Statement of Affairs it will be observed that his only liability was £300 due to Jack & Co. This sum being due to Jack & Co., they are creditors of the business for the amount, and accordingly an account is opened in the Ledger headed Jack & Co., and on the right or credit side of this account is placed the £300. William Wood having brought this liability into the business, his account,

called the Capital Account, must be charged or debited with the £300, as he is indebted to the business for the business having, as it were, taken over the liability. To keep a record of these transactions it will be observed that the entry in the Capital Account is debited as follows: "Jan. 1. To Jack & Co., £300," and Jack & Co.'s Account has on the credit side the following entry: "Jan. 1. By Capital, £300," the entry in each account referring back to the other account. The Assets at 1st January are as follows:—

Due by J. Collins . .	.	£800	0	0
Goods in stock . .	.	600	0	0
Sum in bank . .	.	150	0	0
Cash on hand . .	.	50	0	0

These assets having been brought into the business, William Wood credits himself with each item individually, as shown in his account. J. Collins is debited with £800, because he is indebted to that extent to William Wood. Similarly, the Goods Account is debited with £600, the Bank Account with £150, and the Cash Account with £50.

The transactions throughout the year will now be taken up in detail.

Jan. 2. *Paid Cash for Goods Purchased*, £40.

It is evident that the goods have come in and that cash has gone out, and the Goods Account is therefore debited and the Cash Account is credited with the £40, the entry being made in the Goods Account "To Cash," and in the Cash Account "By Goods." This rule of each entry in each account referring by name to the Ledger Account where the opposite entry will be found is carried on throughout.

Jan. 2. *Purchased Goods on credit from Scott & Tait*, £400.

Here goods having come in, the Goods Account must be debited, and Scott & Tait must be credited, as by the transaction they become creditors for the £400.

Jan. 2. *Gave Scott & Tait Bill at three months,* £400.

The meaning of this transaction is that Scott & Tait, who are creditors of William Wood for the goods purchased from them, got William Wood to acknowledge on a piece of stamped paper that he was so indebted to them, and would pay them cash at the end of three months. So far as William Wood is concerned, therefore, he is now no longer due Scott & Tait £400 on an open account, but is due £400 on a bill payable. It is therefore necessary for William Wood to record this alteration of his liability in his Ledger, and accordingly Scott & Tait are debited and Bills Payable Account credited with the £400.

Jan. 5. *J. Collins settles his Account for* £800 *by paying in Cash* £760, *and is allowed as Discount* £40.

If J. Collins's Ledger Account be referred to, it will be seen that it is debited with £800. As he now settles his indebtedness, it is necessary that he should be credited :—

By Cash . . . £760
„ Discount . . 40,

and the Cash Account will fall to be debited with the £760 of cash which has come in, and the Discount Account to be debited with the £40 allowed J. Collins as discount.

Jan. 5. *Paid into Bank,* £700.

The cash having been paid out, the Cash Account must be credited and the Bank Account is debited, because the bank has received the money, and is therefore indebted to the business for it.

Jan. 7. *Paid Jack & Co., in settlement of their Account of* £300, *Cheque for* £285. *They allowing as Discount* £15.

If Jack & Co's Account is referred to in the Ledger, it will be seen that there is £300 at their credit. As William

Wood has settled this by cheque, and by being allowed discount, it is necessary to enter on the debit side of their account "To Bank, £285," and "To Discount, £15," and to credit the bank with £285, as the bank will duly meet the cheque, and to credit Discount with £15.

Jan. 9. *Sold Goods for Cash,* £20.

As the cash has come in, the Cash Account is debited with £20, and as the goods have gone out, the Goods Account is credited with £20.

Jan. 9. *Sold Goods to J. Collins,* £500.

J. Collins having received these goods is indebted for them, and his account should be debited. The goods having gone out, the Goods Account is credited.

Jan. 9. *Received from J. Collins Bill due in three months,* £500.

William Wood has received from J. Collins a piece of stamped paper acknowledging that he is due the £500, and agreeing to pay it in three months. J. Collins was debited with £500 in respect of the goods, but the £500 was simply due on his open account. The debt in the form of a bill is of more value, as J. Collins, having once put his name to the bill, cannot dispute the indebtedness. It is therefore necessary to credit J. Collins's Account "By Bills Receivable, £500," and to debit the Bills Receivable Account with the £500.

Jan. 9. *Discounted J. Collins's Bill, and received in Cash* £495. *Discount charged,* £5.

This bill is at the debit of Bills Receivable, and until it is discounted is an asset of £500. Having been discounted, the nature of the asset has changed, and it is necessary to wipe this bill out by entering on the credit side of the Bills Receivable Account "By Cash, £495," and "By

Discount, £5." It only remains to enter the £495 on the debit side of the Cash Account and the £5 on the debit side of the Discount Account.

Apr. 5. *Gave Cheque in payment of Bill due to-day,* £400.

The bank must get credit for having paid this cheque, and accordingly the Bank Account is credited. The Bills Payable Account is debited, as the bill is no longer a liability.

June 30. *Paid for Half-year's Rent to this date,* £35.

Cash having gone out, the Cash Account is credited and the Rent Account debited.

June 30. *Paid Wages,* £100.

The Cash Account is credited and the Wages Account is debited.

Dec. 1. *Sold Goods to W. Simpson,* £650.

W. Simpson is debited because he has received the goods, and is therefore indebted for them, and the Goods Account is credited, as the goods have gone out.

Dec. 1. *Paid to Account of Rent for Half-year ending* 31*st December,* £15.

The Cash Account is credited and the Rent Account is debited.

Dec. 1. *Purchased from Jack & Co. Goods on credit,* £490.

The Goods Account is debited, because the goods have come in, and Jack & Co. are credited, because they have sent the goods.

Dec. 1. *Gave Jack & Co. Bill at three months,* £280.
Gave Jack & Co. Cheque for £200.
They allowing as Discount £10.

Jack & Co.'s Account should be debited as follows:—

To Bills payable . . .	£280
„ Bank	200
„ Discount	10

and Bills Payable, Bank, and Discount should be credited with the respective entries.

Dec. 5. *Sold Goods to J. Collins,* £1830.

J. Collins should be debited, as he received the goods, and the Goods Account should be credited, as the goods have gone out.

Dec. 7. *Purchased Goods from Scott & Tait on credit,* £1000.

The Goods Account should be debited, because the goods have come in, and Scott & Tait should be credited, because they have sent the business the goods.

Dec. 7. *Received Cash from J. Collins,* £1230.
Received Bill from J. Collins at three months, £300.

It is quite evident that J. Collins should be credited "By Cash, £1230," and "By Bills receivable, £300," and the Cash and Bills Receivable Accounts debited.

Dec. 8. *Paid into Bank,* £900.

The bank should be debited, as they have received, and are therefore indebted for, the cash, and the Cash Account should be credited, as that amount of cash has been paid.

Dec. 8. *Purchased Goods from Jack & Co. on credit,* £370.

The Goods Account should be debited, as the goods have come in, and Jack & Co. should be credited.

Dec. 8. *Gave Cheque to Scott & Tait as Payment to Account,* £770.

Scott & Tait should be debited, as they receive the cash, and the bank should be credited, as they pay it out on behalf of William Wood.

Dec. 31. *Paid Wages to date,* £100.

The Cash Account should be credited and Wages Account debited.

Dec. 31. *Cash taken during Year by William Wood for his own use,* £600.

It is quite evident that Cash should be credited, as the cash has gone out, and William Wood having taken the money for his own use, he should be debited with the amount.

It will have been observed that in recording all these transactions for every debit there has been a corresponding credit, and, accordingly, if the Ledger is added up at this stage, the total of the debit side will agree with the total of the credit side. This is shown in the Trial Balance.

LEDGER ACCOUNTS BEFORE MAKING CLOSING ENTRIES

J. Collins.

Jan. 1.	To Capital	£800	0	0	Jan. 5.	By Cash.	£760	0	0
9.	,, Goods	500	0	0		,, Discount	40	0	0
Dec. 5.	,, do.	1830	0	0	9.	,, Bills receivable.	500	0	0
		3130	*0*	*0*	Dec. 7.	,, Cash.	1230	0	0
						,, Bills receivable.	300	0	0
							2830	*0*	*0*

W. Simpson.

Dec. 1.	To Goods .	£650	0	0				

Jack & Co.

Jan 7.	To Bank .	£285	0	0	Jan. 1.	By Capital .	£300	0	0
	,, Discount .	15	0	0	Dec. 1.	,, Goods .	490	0	0
Dec. 1.	,, Bills payable .	280	0	0		8. ,, do. .	370	0	0
	,, Bank .	200	0	0			*1160*	*0*	*0*
	,, Discount .	10	0	0					
		790	*0*	*0*					

Scott & Tait.

Jan. 2.	To Bills payable .	£400	0	0	Jan. 2.	By Goods .	£400	0	0
Dec. 8.	,, Bank .	770	0	0	Dec. 7.	,, do. .	1000	0	0
		1170	*0*	*0*			*1400*	*0*	*0*

Bills Payable.

Apr. 5.	To Bank .	£400	0	0	Jan. 2.	By Scott & Tait	£400	0	0
					Dec. 1.	,, Jack & Co. .	280	0	0
							680	*0*	*0*

Bills Receivable.

Jan. 9.	To J. Collins .	£500	0	0	Jan. 9.	By Cash . .	£495	0	0
Dec. 7.	,, do. .	300	0	0		,, Discount .	5	0	0
		800	*0*	*0*			*500*	*0*	*0*

Goods.

Jan. 1.	To Capital .	£600	0	0	Jan. 9.	By Cash . .	£20	0	0
2.	,, Cash . .	40	0	0		,, J. Collins .	500	0	0
	,, Scott & Tait	400	0	0	Dec. 1.	,, W. Simpson . .	650	0	0
Dec. 1.	,, Jack & Co.	490	0	0	5.	,, J. Collins .	1830	0	0
7.	,, Scott & Tait	1000	0	0			*3000*	*0*	*0*
8.	,, Jack & Co.	370	0	0					
		2900	*0*	*0*					

Rent.

June 30.	To Cash	.	£35	0	0			
Dec. 1.	,, do.	.	15	0	0			
			50	*0*	*0*			

Wages.

June 30.	To Cash	.	£100	0	0			
Dec. 31.	,, do.	.	100	0	0			
			200	*0*	*0*			

Discount.

Jan. 5.	To J. Collins	.	£40	0	0	Jan. 7.	By Jack & Co.	.	£15	0 0
9.	,, Bills receivable	.	5	0	0	Dec. 1.	,, do.	.	10	0 0
			45	*0*	*0*				*25*	*0 0*

Capital.

Jan. 1.	To Jack & Co.	.	£300	0	0	Jan. 1.	By J. Collins	.	£800	0 0
Dec. 31	,, Cash	.	600	0	0		,, Goods	.	600	0 0
			900	*0*	*0*		,, Bank	.	150	0 0
							,, Cash	.	50	0 0
									1600	*0 0*

Bank.

Jan. 1.	To Capital	.	£150	0	0	Jan. 7.	By Jack & Co.		£285	0 0
5.	,, Cash	.	700	0	0	Apr. 5.	,, Bills payable	.	400	0 0
Dec. 8.	,, do.	.	900	0	0	Dec. 1.	,, Jack & Co.		200	0 0
			1750	*0*	*0*	8.	,, Scott & Tait		770	0 0
									1655	*0 0*

Cash.

Jan. 1.	To Capital	.	£50	0	0	Jan. 2.	By Goods	.	£40	0 0
5.	,, J. Collins	.	760	0	0	5.	,, Bank	.	700	0 0
9.	,, Goods	.	20	0	0	June 30.	,, Rent	.	35	0 0
	,, Bills receivable	.	495	0	0		,, Wages	.	100	0 0
Dec. 7.	,, J. Collins	.	1230	0	0	Dec. 1.	,, Rent	.	15	0 0
			2555	*0*	*0*	8.	,, Bank	.	900	0 0
						31	,, Wages	.	100	0 0
							,, W. Wood	.	600	0 0
									2490	*0 0*

TRIAL BALANCE as at 31st December.

	Dr.	Cr.
J. Collins	£3,130 0 0	£2,830 0 0
W. Simpson	650 0 0	
Jack & Co.	790 0 0	1,160 0 0
Scott & Tait	1,170 0 0	1,400 0 0
Bills payable	400 0 0	680 0 0
Bills receivable	800 0 0	500 0 0
Goods	2,900 0 0	3,000 0 0
Rent	50 0 0	
Wages	200 0 0	
Discount	45 0 0	25 0 0
Capital	900 0 0	1,600 0 0
Bank	1,750 0 0	1,655 0 0
Cash	2,555 0 0	2,490 0 0
	£15,340 0 0	£15,340 0 0

CLOSING ENTRIES

The accuracy of the posting of the Ledger having been so far determined by the agreement of the totals of the Trial Balance, the closing entries involving the preparation of the Profit and Loss Account and Balance Sheet may now be proceeded with.

Goods Account.

The first account requiring adjustment is the Goods Account. The following is an abstract of the Goods Account as it at present stands in the Ledger :—

Abstract of Goods Account

Jan. 1.	To Stock on hand at this date	£600	0	0	Dec. 31. By Sales . £3000	0 0
Dec. 31.	,, Purchases	2300	0	0		

It is important to note the various items of which this account consists, and these will be readily seen from the above abstract. On the debtor side there is the cost of goods which were in stock at the beginning of the year and the cost of the goods purchased since, and on the credit side there is the total sales which have been made during the year. The debit side therefore shows the

total cost of the goods which have been in the shop or warehouse during the year, and the credit side contains the total price realised for the goods which have been sold. All the goods, however, have not yet been sold, and, to arrive at the profit from the purchase and sale of the goods, it is necessary that the goods on hand at the close of the year should be allowed for. The value of the goods on hand at the close of the year would be arrived at by actually going over the goods and preparing a priced inventory of them. Suppose that this has been done, and that the value of the goods, taken at cost price, is £700, it is evident that if this sum is deducted from the debit side of the Goods Account, the total of the debit side will then represent the cost of the goods which have been actually sold, and as on the credit side there is the price realised for these goods that have been sold the difference between the two sides will give the gross profit on the goods. Instead of deducting the goods on hand at the close of the year from the debit side, the effect will be the same if the amount is entered on the credit side, and as the goods on hand at the close of the year may be looked upon as the balance of the Goods Account, the simplest plan is to enter the amount on the credit side as the balance. The credit side will then amount to £3700, and the debit side to £2900, and the difference, £800, will be the gross profit on goods. The gross profit on goods should be transferred to the Profit and Loss Account, where all the profits and all the charges or losses are collected together, and this is done by entering on the debit side of the Goods Account "To Profit and Loss, £800." The abstract of the Goods Account will then appear as follows:—

Abstract of Goods Account.

Jan. 1.	To Stock on hand at this date	£600	0	0	Dec. 31. By Sales .	£3000	0	0
Dec. 31.	,, Purchases	2300	0	0	,, Balance	700	0	0
	,, Profit and Loss .	800	0	0				
		£3700	0	0		£3700	0	0
Jan. 1.	To Balance .	£700	0	0				

Rent Account

Another account requiring special adjustment is the Rent Account. This account appears as follows :—

Rent Account.

June 30.	To Cash.	£35	0	0			
Dec. 1.	,, do.	15	0	0			

The account is at present debited with £50, but the rent of the shop or warehouse is £70 per annum, and it would not therefore do to transfer £50 to the Profit and Loss Account, but £70 must be transferred. If the entry is made on the credit side of the Rent Account—"By Profit and Loss, £70," the Rent Account will then have a balance of £20, which should be carried down as a liability, that being the balance of rent which is due on the 31st of December. The Rent Account will then appear as follows :—

Rent Account.

June 30.	To Cash	£35	0	0	Dec. 31.	By Profit and Loss	£70	0	0
Dec. 1.	,, do.	15	0	0					
31.	,, Balance	20	0	0					
		£70	0	0			£70	0	0
					Jan. 1.	By Balance	£20	0	0

Wages.

The Wages Account has £200 on the debit side, and to transfer this to the Profit and Loss Account the entry is made on the credit side—"By Profit and Loss, £200," and the amount transferred.

Discount.

Similarly, the Discount Account shows an excess of the debit side over the credit side of £20, and this amount is transferred in the same way to the Profit and Loss Account.

Profit and Loss Account.

There have now been transferred into the Profit and Loss Account all the profits of the business for the year, these appearing on the credit side, and on the debit side are placed all the charges incurred in earning this profit, namely rent, wages, and discount. The difference between the two sides is £510, which is the net profit. As the net profit belongs to the owner of the business, it should be transferred to his account, namely, the Capital Account, by entering on the debit side of the Profit and Loss Account "To Capital, £510."

Balance Sheet.

All that now remains to be done is to balance off each of the accounts, and carry down the balances. All the debit balances represent assets, and the credit balances represent liabilities, including capital. In the Balance Sheet are shown on the one side all the assets, and on the other all the liabilities, including capital.

COMPLETED LEDGER ACCOUNTS

J. Collins.

Jan. 1.	To Capital	£800	0	0	Jan. 5.	By Cash	£760	0	0
9.	,, Goods	500	0	0		,, Discount	40	0	0
Dec. 5.	,, do.	1830	0	0	9.	,, Bills receivable	500	0	0
					Dec. 7.	,, Cash	1230	0	0
						,, Bills receivable	300	0	0
					31.	,, Balance	300	0	0
		£3130	0	0			£3130	0	0
Jan. 1.	To Balance	£300	0	0					

W. Simpson.

Dec. 1.	To Goods	£650	0	0	Dec. 31.	By Balance	£650	0	0
		£650	0	0			£650	0	0
Jan. 1.	To Balance	£650	0	0					

Jack & Co.

Jan.	7.	To Bank	£285	0	0	Jan. 1.	By Capital	£300	0	0
		,, Discount	15	0	0	Dec. 1.	,, Goods	490	0	0
Dec.	1.	,, Bills payable	280	0	0		8. ,, do.	370	0	0
		,, Bank	200	0	0					
		,, Discount	10	0	0					
	31.	,, Balance	370	0	0					
			£1160	0	0			£1160	0	0
						Jan. 1.	By Balance	£370	0	0

Scott & Tait.

Jan.	2.	To Bills payable	£400	0	0	Jan. 2.	By Goods	£400	0	0
Dec.	8.	,, Bank	770	0	0	Dec. 7.	,, do.	1000	0	0
	31.	,, Balance	230	0	0					
			£1400	0	0			£1400	0	0
						Jan. 1.	By Balance	£230	0	0

Bills Payable.

Apr.	5.	To Bank	£400	0	0	Jan. 2.	By Scott & Tait	£400	0	0
Dec.	31.	,, Balance	280	0	0	Dec. 1.	,, Jack & Co.	280	0	0
			£680	0	0			£680	0	0
						Jan. 1.	By Balance	£280	0	0

Bills Receivable.

Jan.	9.	To J. Collins	£500	0	0	Jan.	9. By Cash	£495	0	0
Dec.	7.	,, do.	300	0	0		,, Discount	5	0	0
						Dec.	31. ,, Balance	300	0	0
			£800	0	0			£800	0	0
Jan.	1.	To Balance	£300	0	0					

Goods.

Jan. 1.	To Capital	£600	0	0	Jan. 9.	By Cash	£20	0	0
2.	,, Cash	40	0	0		,, J. Collins	500	0	0
	,, Scott & Tait	400	0	0	Dec. 1.	,, W. Simpson	650	0	0
Dec. 1.	,, Jack & Co.	490	0	0	5.	,, J. Collins	1830	0	0
7.	,, Scott & Tait	1000	0	0	31.	,, Balance	700	0	0
8.	,, Jack & Co.	370	0	0					
31.	,, Profit and Loss	800	0	0					
		£3700	0	0			£3700	0	0
Jan. 1.	To Balance	£700	0	0					

Rent.

June 30.	To Cash	£35	0	0	Dec. 31.	By Profit and Loss	£70	0	0
Dec. 1.	,, do.	15	0	0					
31.	,, Balance	20	0	0					
		£70	0	0			£70	0	0
					Jan. 1.	By Balance	£20	0	0

Wages.

June 30.	To Cash	£100	0	0	Dec. 31.	By Profit and Loss	£200	0	0
Dec. 31.	,, do.	100	0	0					
		£200	0	0			£200	0	0

Discount.

Jan. 5.	To J. Collins	£40	0	0	Jan. 7.	By Jack & Co.	£15	0	0
9.	,, Bills receivable	5	0	0	Dec. 1.	,, do.	10	0	0
					31.	,, Profit and Loss	20	0	0
		£45	0	0			£45	0	0

Capital.

Jan. 1.	To Jack & Co.	£300	0	0	Jan. 1.	By J. Collins	£800	0	0
Dec. 31.	,, Cash	600	0	0		,, Goods	600	0	0
	,, Balance	1210	0	0		,, Bank	150	0	0
						,, Cash	50	0	0
					Dec. 31.	,, Profit and Loss	510	0	0
		£2110	0	0			£2110	0	0
					Jan. 1.	By Balance	£1210	0	0

Bank.

Jan. 1.	To Capital	£150	0	0	Jan. 7.	By Jack & Co.	£285	0	0
5.	,, Cash	700	0	0	Apr. 5.	,, Bills payable	400	0	0
Dec. 8.	,, do.	900	0	0	Dec. 1.	,, Jack & Co.	200	0	0
					8.	,, Scott & Tait	770	0	0
					31.	,, Balance	95	0	0
		£1750	0	0			£1750	0	0
Jan. 1.	To Balance	£95	0	0					

Cash.

Jan. 1.	To Capital	£50	0	0	Jan. 2.	By Goods	£40	0	0
5.	,, J. Collins	760	0	0	5.	,, Bank	700	0	0
9.	,, Goods	20	0	0	June 30.	,, Rent	35	0	0
	,, Bills receivable	495	0	0		,, Wages	100	0	0
Dec. 7.	,, J. Collins	1230	0	0	Dec. 1.	,, Rent	15	0	0
					8.	,, Bank	900	0	0
					31.	,, Wages	100	0	0
						,, W. Wood	600	0	0
						,, Balance	65	0	0
		£2555	0	0			£2555	0	0
Jan. 1.	To Balance	£65	0	0					

Profit and Loss.

Dec. 31.	To Rent	£70	0	0	Dec. 31.	By Goods	£800	0	0
	,, Wages	200	0	0					
	,, Discount	20	0	0					
	,, Capital	510	0	0					
		£800	0	0			£800	0	0

BALANCE SHEET as at 31st December.

Liabilities.				*Assets*			
Due to Jack and Co.	£370	0	0	Due by J. Collins	£300	0	0
Due to Scott & Tait	230	0	0	Due by W. Simpson	650	0	0
Bills payable	280	0	0	Bills receivable	300	0	0
Rent outstanding	20	0	0	Goods on hand	700	0	0
Capital	1210	0	0	Cash in bank	95	0	0
				Cash on hand	65	0	0
	£2110	0	0		£2110	0	0

It has now been shown, by means of Ledger Accounts only, how all the business transactions of William Wood

13035

may be properly and sufficiently recorded. It is seen exactly how it is that he has made a profit on his business, and what his assets and liabilities consist of. It is thus apparent that the essential book in book-keeping is the Ledger, and that all the results which book-keeping is capable of affording may be obtained by the use of the Ledger alone. In practice, however, it would be found almost impossible to keep accounts in the way that has been illustrated by means of a Ledger only, but it is important to remember that the whole theory of book-keeping is contained in the Ledger, and that any additional books which it may be found advisable to use are simply branches or parts of the Ledger system, and can only be properly understood and correctly used when they are looked upon as such. These same transactions of William Wood will now be treated in a way which is more in harmony with actual practice.

PRACTICAL BOOK-KEEPING

In devising a set of books for any business concern, there are certain points which the accountant should carefully keep in mind. It should be such a system of book-keeping as will not involve the keeping of too many clerks nor the procuring of too expensive books. The great secret of achieving economy in the book-keeping of an establishment is to utilise the original entries to the fullest extent. No scroll-books should ever be used, but the entries should be at once written into the proper book of record as the transaction takes place, and each book of record should, if possible, be so arranged as to be utilised in preparing the Profit and Loss Account and Balance Sheet. Another criterion of a good system of book-keeping, and one which often effects great saving of time, is to have the books so arranged that it is possible in the event of any errors getting into the books to trace them readily. Where it is possible to localise errors the irksome labour of going over the whole of the books until all the errors are found is

obviated. In a good system of book-keeping the books should be so arranged and sub-divided that the clerks of the establishment can have access to them as they require. No excuse should ever be accepted that one clerk cannot get on with his work because another clerk is using the book he requires. Under a well-arranged system of book-keeping it is very easy to avoid this. To sum up, that system of book-keeping is the best in which the fullest effect is given to the following:—

1. The utilising of the original entries.
2. The localising of errors.
3. The accessibility of the books to the clerks of the establishment.

The transactions of William Wood as they might be recorded in actual practice.

Having treated the transactions of William Wood in a purely theoretical manner, it now remains to illustrate how these transactions might be treated in a practical way. It is evident that if the business was of any size at all the transactions connected with cash might become so extensive as to necessitate a clerk being employed to devote his sole time to attending to the cash. In such a case it is quite evident that it would be of advantage instead of having the cash account in the Ledger to keep it in a separate book which the cashier could have always in front of him. Similarly, a separate book might be kept for goods received and a separate book for goods sold. The books necessary to record the transactions of William Wood might therefore be the following:—

1. Cash Book, for cash transactions.
2. Invoice Book, for goods purchased.
3. Day Book, for goods sold.
4. Journal.
5. Ledger.

1. *The Cash Book*

The Cash Book which is given has three money columns on each side, headed Discount, Bank, and Cash, and the

use of these columns is easily understood. The Discount column on the debtor side is for the purpose of inserting opposite the name of the customer the amount of discount allowed to the customer when a settlement takes place. The Discount column on the credit side is for discount allowed by creditors at settlement. The Bank column on the debtor side is for the purpose of containing all sums paid into bank, and the Bank column on the credit side is for the purpose of containing the amounts of all cheques which are issued on the bank. It will be observed that the Bank column on the debtor side starts with the cash in bank at the beginning of the year, and that the cash in bank at the close of the year—£95—is entered in the credit column. The Bank columns contain all the entries exactly as they appear in the Bank Pass Book, and there is thus no necessity of keeping a Bank Account in the Ledger. The Cash column on the debtor side is for cash actually received, and the Cash column on the credit side of the Cash Book is for cash actually paid away.

All the items on the debit side of the Cash Book should be posted to the credit side of some account in the Ledger, and all the items on the credit side of the Cash Book should be posted to the debit side of some account in the Ledger, except the purely cash transactions with the Bank and the Cash and Bank balances. The only transactions in the Cash Book which are not posted are the payments of cash into bank or cash received from bank, which are given effect to through the Cash and Bank columns. It will be observed that only the balance of the discount, namely £20, is posted to the Ledger.

2. *The Invoice Book.*

The Invoice Book is for the purpose of containing the details of all goods purchased. It thus practically takes the place of the debit side of the Goods Account in the Ledger, and to form the Ledger Account it is only necessary to post the total of the Invoice Book, either weekly or monthly, as may be thought desirable, to the debit of the

Goods Account. The details of the Invoice Book are posted to the credit of the various accounts with the exception of the cash items which have already appeared on the credit side of the Cash Book.

3. *The Day Book.*

The Day Book is for the purpose of containing the details of the goods sold. It is thus really the credit side of the Goods Account in detail. To the Goods Account in the Ledger the total of the Day Book should be credited, weekly or monthly, as required. The individual items in the Day Book are posted to the debit of the different customers' accounts in the Ledger, with the exception of any purely cash items which have already appeared on the debit side of the Cash Book.

4. *The Journal.*

The Cash Book, the Invoice Book, and the Day Book are called the books of original record, because the transactions are recorded in them just as they take place. These books are all posted into the Ledger direct. In most businesses there are some transactions which are not contained in the books of original record which require to appear in the Ledger, and for all such items it is desirable to use the Journal. The Journal is solely for the purpose of keeping a record of the debiting and crediting of items in the Ledger, and is practically used for :—

1. Opening entries.
2. Entries which cannot be conveniently carried through the books of original record.
3. Closing entries.

In the Journal submitted it will be observed that the opening entries are all given, although perhaps the bank and the cash items might have been posted direct from the Cash Book. The entries throughout the year refer to bills payable and bills receivable and to the totals of the Invoice Book and Day Book. When bill transactions are numerous

it is desirable to keep a special book for bills payable and bills receivable, which may be used as the Bill Journal. The other entries relate to the closing of the books.

5. *The Ledger.*

The Ledger is given all in one, although in most businesses it is very desirable to have the Ledger divided into :—

1. The Customers' Ledger or Debtors' Ledger, for Customers' Accounts.
2. The Purchases Ledger or Creditors' Ledger, for accounts with creditors or with those from whom goods are purchased.
3. The General Ledger, for all other accounts.

Where, as in most businesses, it is desired that the clerks should not know what profit is being earned or what the amount of the capital is, a Private Ledger should also be kept. The other ledgers may be balanced apart from the Private Ledger by keeping in the General Ledger an account headed "Private Ledger Account" for all transactions which require to be entered through the other books, but which really belong to the Private Ledger.

If a Private Ledger were kept in the present system, no Goods or Capital Accounts would be required, and the Private Ledger Account in the General Ledger would be as follows :—

Private Ledger Account.

		£	s	d			£	s	d
Jan. 1.	To Jack & Co.	300	0	0	Jan. 1.	By J. Collins	800	0	0
Dec. 31.	Cash, W. Wood	600	0	0		,, Bank	150	0	0
	,, Rent	50	0	0		,, Cash	50	0	0
	,, Wages	200	0	0	Dec. 31.	,, Sales	3000	0	0
	,, Discount	20	0	0					
	,, Purchases	2300	0	0					
	,, Balance	530	0	0					
		£4000	0	0			£4000	0	0

Cash Book.

Dr. *Cr.*

		Discount (allowed).	Bank (paid in).	Cash (received).			Discount (secured).	Bank (cheques issued).	Cash (paid).
		£ s. d.	£ s. d.	£ s. d.			£ s. d.	£ s. d.	£ s. d.
Jan. 1.	To Capital		150 0 0	50 0 0	Jan. 2.	By Goods			40 0 0
5.	,, J. Collins	40 0 0		760 0 0	5.	,, Bank			700 0 0
	,, Cash		700 0 0		7.	,, Jack & Co.	15 0 0	285 0 0	
9.	,, Goods			20 0 0	Apr. 5.	,, Bills payable		400 0 0	
	,, Bills receivable	5 0 0		495 0 0	June 30.	,, Rent			35 0 0
Dec. 7.	,, J. Collins			1230 0 0		,, Wages			100 0 0
8.	,, Cash		900 0 0		Dec. 1.	,, Rent			15 0 0
						,, Jack & Co.	10 0 0	200 0 0	
					8.	,, Bank			900 0 0
						,, Scott & Tait		770 0 0	
					31.	,, Wages			100 0 0
						,, W. Wood— Capital Account			600 0 0
						,, Discount	20 0 0		
						,, Balances		95 0 0	65 0 0
		45 0 0	1750 0 0	2555 0 0			45 0 0	1750 0 0	2555 0 0

The Cash Book above shown is suitable for most wholesale merchants. The student should specially note the method of using the Bank and Discount columns. The Bank columns are very often used merely as analytical columns. By the above method they are used as principal columns, and cash paid out of or paid into bank is treated in the same way as cash received into or paid out of the cash-box.

Invoice Book

Jan. 2.	To Cash	£40	0	0
	,, Scott & Tait	400	0	0
Dec. 1.	,, Jack & Co.	490	0	0
7.	,, Scott & Tait	1000	0	0
8.	,, Jack & Co.	370	0	0
	Goods . . *Dr.*	£2300	0	0

Day Book

Jan. 9.	By Cash	£20	0	0
	,, J. Collins	500	0	0
Dec. 1.	,, W. Simpson	650	0	0
5.	,, J. Collins	1830	0	0
	Goods . . *Cr.*	£3000	0	0

Journal

Jan. 1.	J. Collins . . . *Dr.*	£800	0	0			
	Goods . . . . ,,	600	0	0			
	Bank . . . . ,,	150	0	0			
	Cash . . . . ,,	50	0	0			
	To W. Wood, Capital Account				£1600	0	0
	for assets at this date						
	W. Wood, Capital Account . *Dr.*	300	0	0			
	To Jack & Co. . . .				300	0	0
	for liability at this date						
		£1900	0	0	£1900	0	0
2.	Scott & Tait . . . *Dr.*	400	0	0			
	To Bills payable . . .				400	0	0
9.	Bills receivable . . *Dr.*	500	0	0			
	To J. Collins . . .				500	0	0
Dec. 1.	Jack & Co. . . . *Dr.*	280	0	0			
	To Bills payable . . .				280	0	0
7.	Bills receivable . . *Dr.*	300	0	0			
	To J. Collins . . .				300	0	0
31.	Goods . . . . *Dr.*	2300	0	0			
	To Sundries				2300	0	0
	for total of Invoice Book						
	Sundries . . . *Dr.*	3000	0	0			
	To Goods				3000	0	0
	for total of Day Book						
	Carry forward . .	£6780	0	0	£6780	0	0

JOURNAL—*Continued*

	Brought forward . .			£6780	0	0	£6780	0	0
Dec. 31.	Goods (New Account) . .	*Dr.*		700	0	0			
	To Goods (Old Account) . .						700	0	0
	for goods on hand at this date								
	Rent (Old Account) . .	*Dr.*		20	0	0			
	To Rent (New Account) .						20	0	0
	for rent accrued to date unpaid								
	Goods	*Dr.*		800	0	0			
	To Profit and Loss . . .						800	0	0
	Profit and Loss . . .	*Dr.*		800	0	0			
	To Rent						70	0	0
	,, Wages						200	0	0
	,, Discount						20	0	0
	,, Capital						510	0	0
				£9100	0	0	£9100	0	0

LEDGER

J. Collins.

Jan. 1.	To Capital .	£800	0	0	Jan. 5.	By Cash . .	£760	0	0
9.	,, Goods .	500	0	0		,, Discount .	40	0	0
Dec. 5.	,, do. .	1830	0	0	9.	,, Bills receivable .	500	0	0
					Dec. 7.	,, Cash . .	1230	0	0
						,, Bills receivable . .	300	0	0
					31.	,, Balance .	300	0	0
		£3130	0	0			£3130	0	0
Jan. 1.	To Balance .	£300	0	0					

W. Simpson.

Dec. 1.	To Goods . .	£650	0	0	Dec. 31.	By Balance .	£650	0	0
		£650	0	0			£650	0	0
Jan. 1.	To Balance .	£650	0	0					

Jack & Co.

Jan.	7.	To Bank	£285	0	0	Jan. 1.	By Capital	£300	0	0
		,, Discount	15	0	0	Dec. 1.	,, Goods	490	0	0
Dec.	1.	,, Bills payable	280	0	0		8. ,, do.	370	0	0
		,, Bank	200	0	0					
		,, Discount	10	0	0					
	31.	,, Balance	370	0	0					
			£1160	0	0			£1160	0	0
						Jan. 1.	By Balance	£370	0	0

Scott & Tait.

Jan.	2.	To Bills payable	£400	0	0	Jan. 2.	By Goods	£400	0	0
Dec.	8.	,, Bank	770	0	0	Dec. 7.	,, do.	1000	0	0
	31.	,, Balance	230	0	0					
			£1400	0	0			£1400	0	0
						Jan. 1.	By Balance	£230	0	0

Bills Payable.

Apr.	5.	To Bank	£400	0	0	Jan. 2.	By Scott & Tait	£400	0	0
Dec.	31.	,, Balance	280	0	0	Dec. 1.	,, Jack & Co.	280	0	0
			£680	0	0			£680	0	0
						Jan. 1.	By Balance	£280	0	0

Bills Receivable.

Jan.	9.	To J. Collins	£500	0	0	Jan.	9. By Cash	£495	0	0
Dec.	7	,, do.	300	0	0		,, Discount	5	0	0
						Dec.	31. ,, Balance	300	0	0
			£800	0	0			£800	0	0
Jan.	1.	To Balance	£300	0	0					

Goods.

Jan.	1.	To Capital	£600	0	0	Dec.	31. By Sales	£3000	0	0
Dec.	31.	,, Purchases	2300	0	0		,, Balance	700	0	0
		,, Profit and Loss	800	0	0					
			£3700	0	0			£3700	0	0
Jan.	1.	To Balance	£700	0	0					

Rent.

June 30.	To Cash	.	£35	0	0	Dec. 31. By Profit and Loss	.	£70	0	0
Dec. 1.	,, do.	.	15	0	0					
31	,, Balance	.	20	0	0					
			£70	0	0			£70	0	0
						Jan. 1. By Balance	.	£20	0	0

Wages.

June 30.	To Cash	.	£100	0	0	Dec. 31. By Profit and Loss	.	£200	0	0
Dec. 31.	,, do.	.	100	0	0					
			£200	0	0			£200	0	0

Discount.

Dec. 31.	To Cash	.	£20	0	0	Dec. 31. By Profit and Loss	.	£20	0	0
			£20	0	0			£20	0	0

Capital.

Jan. 1.	To Jack & Co.	£300	0	0	Jan. 1.	By J. Collins	£800	0	0
Dec. 31	,, Cash .	600	0	0		,, Goods .	600	0	0
	,, Balance .	1210	0	0		,, Bank .	150	0	0
						,, Cash .	50	0	0
							£1600	0	0
					Dec. 31.	,, Profit and Loss .	510	0	0
		£2110	0	0			£2110	0	0
					Jan. 1.	By Balance .	£1210	0	0

Profit and Loss Account.

Dec. 31.	To Rent	.	£70	0	0	Dec. 31. By Goods	.	£800	0	0
	,, Wages	.	200	0	0					
	,, Discount	.	20	0	0					
	,, Capital	.	510	0	0					
			£800	0	0			£800	0	0

BALANCE SHEET as at 31st December.

Liabilities.				*Assets.*			
Due to Jack & Co.	£370	0	0	Due by J. Collins	£300	0	0
Due to Scott & Tait	230	0	0	Due by W. Simpson	650	0	0
Bills payable	280	0	0	Bills receivable	300	0	0
Rent outstanding	20	0	0	Goods on hand	700	0	0
Capital	1210	0	0	Cash in bank	95	0	0
				Cash on hand	65	0	0
	£2110	0	0		£2110	0	0

PRACTICAL BOOK-KEEPING FURTHER DEVELOPED

THE TRANSACTIONS OF WILLIAM WOOD AS THEY MIGHT BE RECORDED IN ACTUAL PRACTICE, WITH FURTHER IMPROVEMENTS AND DEVELOPMENTS ON THE METHOD ALREADY SHOWN.

The method of recording the transactions of William Wood may be still further improved. A method of keeping these transactions is now submitted which has several advantages over those already shown, and it may be well to point out exactly what these advantages are. The books kept under this system are :—

1. Columnar Cash Book
2. Invoice Book.
3. Day Book.
4. Journal.
5. Ledgers :—
   (*a*) Customers' Ledger or Debtors' Ledger, for customers' accounts.
   (*b*) Purchases Ledger or Creditors' Ledger, for accounts with creditors or with those from whom goods are purchased.
   (*c*) The General Ledger, for all other accounts.

The Cash Book.

It will be observed that in the form of columnar Cash Book now submitted both debit and credit transactions are

entered immediately after the date. There is thus never any break in the page. In the form of Cash Book formerly given if the number of debit transactions was not the same as the number of credit transactions a portion of the page had to be left blank. In the form now submitted no such blank can occur. It will be observed that the Cash and Bank columns, both debit and credit, are the same as in the form of Cash Book already given. The other columns consist of the folio columns and monetary columns for the purpose of analysing the receipts and payments, and containing the discounts. By means of the analytical columns a Cash Abstract may be at any time prepared, and the ledgers may be balanced separately.

The posting of this Cash Book, so far as the details of the Customers' and Creditors' Accounts are concerned, is carried out exactly on the lines of the Cash Book already described. Detailed accounts may also be kept for any of the other items in the analytical columns, or the totals of these analytical columns may be posted either weekly or monthly to the General Ledger. In the example given the columns are totalled and posted at the end of the year.

Invoice Book, Day Book, and Journal.

These books are used exactly in the manner already described, and, being the same as in the former set, are not repeated.

The Ledgers.

The Ledger Accounts which should be specially noted, and the working of which should be carefully followed, are the "Abstract of Customers' Ledger" and the "Abstract of Purchases Ledger," contained in the General Ledger. These accounts are prepared in practice from the weekly or monthly totals of the Day Book and Invoice Book, together with the totals of the Sales column, the Purchases column, and the Discount columns in the Cash Book. The great advantage of these accounts is that they verify at any time the amount due by customers or due to creditors as

WILLIAM WOOD

CASH

Dr.

Discount.			Sales.			Fol.	Bank.			Cash.					
£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.	1899		
							150	0	0	50	0	0	Jan.	1.	To Capital
														2.	By Goods
40	0	0	760	0	0					760	0	0		5.	To J. Collins
							700	0	0						By Bank, sum paid in
														7.	,, Jack & Co.
			20	0	0					20	0	0		9.	To Goods
5	0	0	495	0	0					495	0	0			,, Bills receivable
													Apr.	5.	By Bills payable
													June	30.	,, Rent
															,, Wages
													Dec.	1.	,, Rent
															,, Jack & Co.
			1230	0	0					1230	0	0		7.	To J. Collins
							900	0	0					8.	By Bank, sum paid in
															,, Scott & Tait
														31.	,, Wages
															,, William Wood — Capital Account
															,, Balances
45	0	0	2505	0	0		1750	0	0	2555	0	0			

RCHANT IN LONDON

K

Cr.

ash.		Bank.			Fol.	Purchases.			Discount.			Wages.			Rent, Rates, Gas, and Insurance.			Charges.			Other Payments.		
s.	*d.*	£	*s.*	*d.*		£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
0	0					40	0	0															
0	0																						
		285	0	0		285	0	0	15	0	0												
		400	0	0		400	0	0															
0	0														35	0	0						
0	0											100	0	0									
0	0														15	0	0						
		200	0	0		200	0	0	10	0	0												
0	0																						
		770	0	0		770	0	0															
0	0											100	0	0									
0	0																				600	0	0
0	0	95	0	0																			
0	0	1750	0	0		1695	0	0	25	0	0	200	0	0	50	0	0				600	0	0

contained in the Customers' Ledger and Purchases Ledger. The three ledgers may thus be balanced separately at any time, and an error in the books is at once localised into one or other of the three ledgers. It will be observed that the Bills Receivable Account is kept in the Customers' Ledger, and the Bills Payable Account in the Purchases Ledger; an alternative method is to keep these accounts in the General Ledger, in which case the necessary adjusting entries must be made in the Abstract Accounts for the bills received and accepted.

Customers' Ledger

J. Collins.

Jan. 1.	To Capital	£800	0	0	Jan. 5.	By Cash	£760	0	0
9.	,, Goods	500	0	0		,, Discount	40	0	0
Dec. 5.	,, do.	1830	0	0	9.	,, Bills receivable	500	0	0
					Dec. 7.	,, Cash	1230	0	0
						,, Bills receivable	300	0	0
					31.	,, Balance	300	0	0
		£3130	0	0			£3130	0	0
Jan. 1.	To Balance	£300	0	0					

W. Simpson.

Dec. 1.	To Goods	£650	0	0	Dec. 31.	By Balance	£650	0	0
		£650	0	0			£650	0	0
Jan. 1.	To Balance	£650	0	0					

Bills Receivable.

Jan. 9.	To J. Collins	£500	0	0	Jan. 9.	By Cash	£495	0	0
Dec. 7.	,, do.	300	0	0		,, Discount	5	0	0
					Dec. 31.	,, Balance	300	0	0
		£800	0	0			£800	0	0
Jan. 1.	To Balance	£300	0	0					

Purchases Ledger

Jack & Co.

Jan.	7.	To Bank	£285	0	0	Jan.	1.	By Capital	£300	0	0
		,, Discount	15	0	0	Dec.	1.	,, Goods	490	0	0
Dec.	1.	,, Bills payable	280	0	0		8.	,, do.	370	0	0
		,, Bank	200	0	0						
		,, Discount	10	0	0						
	31.	,, Balance	370	0	0						
			£1160	0	0				£1160	0	0
						Jan.	1.	By Balance	£370	0	0

Scott & Tait.

Jan.	2.	To Bills payable	£400	0	0	Jan.	2.	By Goods	£400	0	0
Dec.	8.	,, Bank	770	0	0	Dec.	7.	,, do.	1000	0	0
	31.	,, Balance	230	0	0						
			£1400	0	0				£1400	0	0
						Jan.	1.	By Balance	£230	0	0

Bills Payable.

Apr.	5.	To Bank	£400	0	0	Jan.	2.	By Scott & Tait	£400	0	0
Dec.	31.	,, Balance	280	0	0	Dec.	1.	,, Jack & Co.	280	0	0
			£680	0	0				£680	0	0
						Jan.	1.	By Balance	£280	0	0

General Ledger

Abstract of Customers' Ledger.

Jan.	1.	To Balance	£800	0	0	Dec.	31.	By Cash	£2505	0	0
Dec.	31.	,, Day Book	3000	0	0			,, Discount	45	0	0
								,, Balance	1250	0	0
			£3800	0	0				£3800	0	0
Jan.	1.	To Balance	£1250	0	0						

Abstract of Purchases Ledger.

Dec.	31.	To Cash	£1695	0	0	Jan.	1.	By Balance	£300	0	0
		,, Discount	25	0	0	Dec.	31.	,, Invoice Book	2300	0	0
		,, Balance	880	0	0						
			£2600	0	0				£2600	0	0
						Jan.	1.	By Balance	£880	0	0

Goods.

Jan. 1.	To Capital	£600	0	0	Dec. 31. By Sales	£3000	0	0
Dec. 31.	,, Purchases	2300	0	0	,, Balance	700	0	0
	,, Profit and Loss	800	0	0				
		£3700	0	0		£3700	0	0
Jan. 1.	To Balance	£700	0	0				

Rent.

Dec. 31.	To Cash	£50	0	0	Dec. 31. By Profit and Loss	£70	0	0
	,, Balance	20	0	0				
		£70	0	0		£70	0	0
					Jan. 1. By Balance	£20	0	0

Wages.

Dec. 31.	To Cash	£200	0	0	Dec. 31. By Profit and Loss	£200	0	0
		£200	0	0		£200	0	0

Discount.

Dec. 31.	To Cash	£45	0	0	Dec. 31. By Cash	£25	0	0
					,, Profit and Loss	20	0	0
		£45	0	0		£45	0	0

Capital.

Jan. 1.	To Jack & Co.	£300	0	0	Jan. 1. By J. Collins	£800	0	0
Dec. 31.	,, Cash	600	0	0	,, Goods	600	0	0
	,, Balance	1210	0	0	,, Bank	150	0	0
					,, Cash	50	0	0
					Dec. 31. ,, Profit and Loss	510	0	0
		£2110	0	0		£2110	0	0
					Jan. 1. By Balance	£1210	0	0

Profit and Loss Account.

Dec. 31.	To Rent	£70	0	0	Dec. 31. By Goods	£800	0	0
	,, Wages	200	0	0				
	,, Discount	20	0	0				
	,, Capital	510	0	0				
		£800	0	0		£800	0	0

BALANCE SHEET as at 31st December.

Liabilities.				*Assets.*			
Due to creditors :—				Due by customers :—			
On open accounts	£600	0	0	On open accounts	£950	0	0
On bills payable	280	0	0	On bills receivable	300	0	0
	£880	0	0		£1250	0	0
Rent outstanding	20	0	0	Goods on hand	700	0	0
Capital	1210	0	0	Cash :—			
				In bank £95 0 0			
				On hand 65 0 0			
					160	0	0
	£2110	0	0		£2110	0	0

Exercises.

Treat the following particulars and transactions in the same way as those of William Wood have been treated on pp. 27-32.

1. On 1st January the position of Adam White, Merchant, was as follows :—

Liabilities.				*Assets.*			
Due to George Tait & Son	£200	0	0	Due by John Harvey	£300	0	0
Bills payable	150	0	0	Bills receivable	100	0	0
				Goods on hand	800	0	0
				Bank	500	0	0

His transactions during the year were as follows :—

Jan. 3.	Received cash for bill due to-day	£100	0	0
4.	Paid cash for goods purchased	30	0	0
	Purchased goods on credit from George Tait & Son	500	0	0
	Paid bill due to-day by cheque	150	0	0
	Gave George Tait & Son bill at three months	700	0	0
7.	John Harvey settles his account for £300 by paying in cash	285	0	0
	And is allowed as discount	15	0	0
	Paid into bank	300	0	0
	Purchased goods from Rusk & Co.	400	0	0
	Sold goods for cash	105	0	0

Jan. 9.	Sold goods to John Harvey . . .	£1000	0	0
	Received from John Harvey bill due in three months	1000	0	0
	Discounted John Harvey's bill, and received in cash	990	0	0
	Discount charged	10	0	0
	Paid into bank	1100	0	0
	Paid Rusk & Co. cheque for . . .	388	0	0
	Discount allowed by them . .	12	0	0
Apr. 7.	Gave cheque in payment of bill due to-day	700	0	0
Dec. 2.	Sold goods to John Harvey . . .	800	0	0
3.	Purchased from George Tait & Son goods on credit	1500	0	0
	Gave George Tait & Son bill at three months	1000	0	0
	Gave George Tait & Son cheque for .	425	0	0
	Discount allowed by them . .	75	0	0
5.	Sold goods to John Harvey . . .	2000	0	0
	Purchased goods from Rusk & Co. .	700	0	0
6.	Received bill from John Harvey at three months	2000	0	0
	Received cash from John Harvey . .	500	0	0
	Purchased goods from George Tait & Son on credit	900	0	0
31.	Paid wages to date in cash . . .	350	0	0
	Paid rent to date by cheque . . .	200	0	0
	Cash taken during year by Adam White for his own use	190	0	0
	Trial Balance to be taken here.			
	Value of goods on hand at this date .	3000	0	0

2. On 1st January the position of William Inglis, Merchant, was as follows:—

Liabilities.				*Assets.*			
Due to A. Ross & Co. .	£300	0	0	Due by John Adamson .	£500	0	0
Bills payable . .	250	0	0	Bills receivable . .	200	0	0
				Goods on hand . .	1000	0	0
				Bank	500	0	0

His transactions during the year were as follows:—

Jan. 2.	Received cash for bill due to-day . .	£200	0	0
4.	Paid cash for goods purchased . .	100	0	0
	Purchased goods on credit from A. Ross & Co.	2000	0	0

Jan. 4.	Paid bill due to-day by cheque . .	£250	0	0
	Gave A. Ross & Co. bill at two months .	2300	0	0
7.	John Adamson settles his account for £500 by paying in cash . . .	475	0	0
	And is allowed as discount . .	25	0	0
	Paid into bank	550	0	0
	Sold goods for cash	60	0	0
9.	Sold goods to John Adamson . .	3000	0	0
	Received from John Adamson bill due in three months	3000	0	0
	Discounted John Adamson's bill, and received in cash	2970	0	0
	Discount charged	30	0	0
	Paid into bank	2970	0	0
Mar. 7.	Gave cheque in payment of bill due to-day.	2300	0	0
Dec. 2.	Sold goods to John Adamson . .	1200	0	0
3.	Purchased from A. Ross & Co. goods on credit	1500	0	0
	Gave A. Ross & Co. cheque for . .	1425	0	0
	Discount allowed by them . .	75	0	0
5.	Sold goods to John Adamson . .	900	0	0
	Purchased goods from A. Ross & Co. .	200	0	0
6.	Received cash from John Adamson .	1140	0	0
	Discount allowed to him . .	60	0	0
31.	Paid wages to date in cash . . .	600	0	0
	Paid rent to date in cash . . .	200	0	0
	Cash taken during year by William Inglis for his own use	400	0	0
	Trial Balance to be taken here.			
	Value of goods on hand at this date .	1000	0	0

3. On 1st January Peter Glen commenced business as a merchant with £100 of cash on hand, and £2400 of cash in bank.

His transactions during the year were as follows:—

Jan. 3.	Gave cheque for office fittings and furniture.	£200	0	0
4.	Paid cash for goods purchased . .	70	0	0
	Purchased goods on credit from James Watt & Co.	1500	0	0

Jan. 7.	Sold goods to John Reid	£1200	0	0
	Sold goods for cash	50	0	0
9.	John Reid settles his account for £1200 by paying in cash	1140	0	0
	And is allowed as discount	60	0	0
	Paid into bank	1140	0	0
	Paid James Watt & Co. cheque for	1425	0	0
	Discount allowed by them	75	0	0
10.	Purchased goods from James Watt & Co.	2000	0	0
	Sold goods for cash	80	0	0
	Sold goods to John Reid	3000	0	0
	Paid James Watt & Co. cheque for	1900	0	0
	Discount allowed by them	100	0	0
Dec. 2.	Sold goods to John Reid	900	0	0
3.	Purchased from James Watt & Co. goods on credit	2100	0	0
	Received cash from John Reid	2850	0	0
	Discount allowed to him	150	0	0
31.	Paid wages to date in cash	400	0	0
	Paid rent to date in cash	150	0	0
	Cash taken during year by Peter Glen for his own use	500	0	0
	Paid into bank	1500	0	0
	Trial Balance to be taken here.			
Dec. 31.	Value of goods on hand at this date	2000	0	0

SINGLE ENTRY

BOOKS KEPT UPON A PARTIAL OR INCOMPLETE SYSTEM OF BOOK-KEEPING ARE SAID TO BE KEPT BY SINGLE ENTRY.

It has been shown that under a complete system of book-keeping, or in book-keeping by double entry, as it is called, the Ledger Accounts are so arranged that one set clearly shows the assets and liabilities of a business concern and the other set the profits and losses, and both sets result in showing and confirming the net profit or loss. Where this is not done the system is incomplete, and the books are said to be kept by single entry. Such books may be in all stages of incompleteness. Thus, very often the only Ledger

Accounts kept are the Customers' Accounts. Sometimes the Creditors' Accounts are also kept. In fact, single-entry book-keeping so called may be said to deal only with personal accounts. In books so kept the charges to customers and the obligations to creditors are recorded in the same manner as in double-entry book-keeping, but the complementary accounts relating to goods and profit and loss, and the important principle of the equality of the debits and credits, are altogether absent. No detailed Profit and Loss Account can as a rule be prepared, and there is no satisfactory check on the accuracy of the results as is provided by the balancing of books which have been kept by double entry. The only check on the accuracy of the posting is to go over it all again and tick off each item as it is ascertained to be correct.

The net profit or loss for any period can be ascertained from books imperfectly kept if the Capital Account, or Capital Accounts in the case of a partnership, have been properly kept for the period so as to show the capital at the beginning, the transactions not connected with the business, including sums taken out of or paid into the business, and the capital at the close of the period. Thus, if a Statement of Affairs has been prepared at the beginning of the period, the surplus shown is the capital at that time, and from a similar Statement of Affairs as at the end of the period the capital then in the business may be ascertained. The profit must be the increase in the capital during the period plus any capital withdrawn during the period and less any sums invested in the business during the period.

Suppose that the capital in a business was £800 at the beginning of the year, and that during the year £300 was taken by the owner as his personal drawings in cash, and £60 of goods were used by the owner for his private consumption. Then if the capital at the end was £900, it is evident that the profit must have been £460. The following might be the Statement of Affairs at the end of the year of such a business :—

STATEMENT OF AFFAIRS OF T. J. SMITH
as at 31st December.

Liabilities.						*Assets.*			
Due to creditors .				£300	0 0	Due by customers .		£600	0 0
Capital . .				900	0 0	Valuation of goods on hand . .		500	0 0
Made up thus :—						Cash on hand . .		100	0 0
Capital at 1st Jan.	£800	0	0						
Deduct—									
Cash drawings £300									
Goods used 60									
	360	0	0						
	£440	0	0						
Profit for year, being amount required to make up capital to £900 . .	460	0	0						
Capital as above .	£900	0	0						
				£1200	0 0			£1200	0 0

The rule for finding the profit from books kept by single entry where complete Capital Accounts have been kept, or where it is possible to prepare them, may be shortly stated as follows :—

Prepare a Statement of Affairs as at the close of the period, and so ascertain the capital at the end of the period. Prepare a Capital Account, or Capital Accounts if the business is a partnership, for the period. From the capital brought out by the Statement of Affairs deduct the capital shown by the Capital Account or the Capital Accounts prepared. The difference is the net profit for the period. If the capital shown by the Capital Accounts is greater than the capital shown by the Statement of Affairs, the result of the period's transactions is a loss.

Trial Balance of Books kept by Single Entry.

A partial trial balance of books kept by single entry may be prepared in the form of an Abstract of Customers' Accounts and an Abstract of Creditors' Accounts, as on p. 37.

To pass from Single Entry to Double Entry.

After the profit has been ascertained, and the Capital Accounts have been duly credited with their shares, all that is necessary to convert books kept by single entry into double entry is to see that in the ledger or ledgers each of the assets appears on the debit side, and each of the liabilities, including the capital, appears on the credit side. No new ledger is required, and the additional labour involved in keeping books under a proper system is so trifling and the advantages to be derived so great that no one is justified in not adopting a complete and satisfactory method of keeping accounts.

Example.

H. Cooper and W. Fulton have been in partnership for a year on an equal footing. They have kept their books by single entry. At the end of the year their assets and liabilities were as follows :—

	Assets.	*Liabilities.*
Goods	£800 0 0	
Cash	85 0 0	
Heritable Property . .	1000 0 0	
Due by T. Ross . . .	900 0 0	
H. Cooper, Capital Account .		£385 0 0
W. Fulton, Capital Account .		400 0 0
Due to J. Watson . .		1500 0 0

It is required to find the profit for the year, and to show the Journal entries necessary to open a new set of books to be kept by the firm.

The Statement of Affairs of the firm as at 31st December is as follows :—

STATEMENT OF AFFAIRS as at 31st December.

Liabilities.		*Assets.*	
Due to J. Watson	£1500 0 0	Due by T. Ross	£900 0 0
Capital	1285 0 0	Goods on hand	800 0 0
		Heritable property	1000 0 0
		Cash on hand	85 0 0
	£2785 0 0		£2785 0 0

The profit for the year is £500, as follows :—

Capital of the firm at the close of the year, as above		£1285 0 0
Deduct—		
The credit balance shown on the partners' accounts :—		
H. Cooper	£385 0 0	
W. Fulton	400 0 0	
		785 0 0
Leaving as profit for the year		£500 0 0

Each partner is entitled to half of this profit, or £250 each.

Crediting the partners with £250 each, the capital of £1285 belongs to the partners in the proportions shown below :—

H. Cooper :—		
Credit balance		£385 0 0
Share of profit		250 0 0
		£635 0 0
W. Fulton :—		
Credit balance	£400 0 0	
Share of profit	250 0 0	
		650 0 0
		£1285 0 0

The Journal entries necessary to open the new set of books are therefore as follows :—

Journal.

Jan. 1.	Goods	*Dr.*	£800 0 0				
	Cash	,,	85 0 0				
	Heritable property	,,	1000 0 0				
	T. Ross	,,	900 0 0				
	To Balance				£2785 0 0		
	Balance	*Dr.*	2785 0 0				
	To H. Cooper, Capital Account				635 0 0		
	,, W. Fulton, Capital Account				650 0 0		
	,, J. Watson				1500 0 0		

It will be observed that by this method of making the Journal entries a Balance Account is opened which is debited and credited with the same amount, namely £2785. To debit the whole of the assets to the whole of the liabilities, and omit the Balance Account altogether, is quite permissible.

PROFIT

The return from capital employed in business or trade is divided by economists into—

1. Interest on the capital itself.
2. A premium of insurance to cover the risk of losing the capital.
3. Wages of management or superintendence for the owner of the capital when he manages the business.

The interest on capital invested in a mercantile or manufacturing concern is usually reckoned as $4\frac{1}{2}$ or 5 per cent, that being the rate which a borrower would have to pay for money to be so invested, and as a rule a lender would stipulate for a life policy or some other asset as collateral security. The interest so paid to the lender includes the premium of insurance to cover the risk of losing the capital. A merchant in business for himself therefore expects the business to yield him:—

1. Interest on the capital he has invested in the business, because he could invest this money elsewhere, and he would receive interest upon it.

2. A premium of insurance to cover the risk of losing his capital. The rate of this premium will vary according to the nature of the business.

3. The merchant expects a further sum in respect that he devotes his time to his business, and could earn a salary as manager of another business if he were not in business for himself.

What is meant by insurance of the risk of losing capital will be readily understood from an example. British consols at the present time yield an investor 2 per cent, while Brazilian bonds yield as much as 7 per cent. In

the case of consols the whole return may be looked upon as interest, as the security is the best that can be got, but in the case of Brazilian bonds, while £2 of the return on each £100 invested may be regarded as the interest on the capital employed, the balance of £5 should be looked upon as an insurance premium to be set aside to cover the contingency of the capital never being received. No wages of management enters into the return, as the bondholder, unfortunately for him, is not allowed to manage the finances of Brazil.

PROFIT CONSISTS OF THE SURPLUS REMAINING OVER FROM THE EMPLOYMENT OF CAPITAL AFTER DEFRAYING ALL THE NECESSARY EXPENSES AND OUTLAY INCURRED IN ITS EMPLOYMENT, AND AFTER THE CAPITAL HAS BEEN REPLACED OR PROVISION MADE FOR ITS REPLACEMENT. IF THERE ARE NOT SUFFICIENT ASSETS LEFT TO REPLACE THE CAPITAL, THE RESULT OF THE VENTURE OR EMPLOYMENT IS A LOSS. It should be observed that this definition of Profit is from an economist's point of view, and while absolutely true in theory cannot always be employed in practice to ascertain what may be profit as defined by an Act of Parliament or some other deed regulating a business. Under an Act of Parliament there is sometimes included under the term "profit" what is not embraced by this definition. Such statutory or legal profit must be distinguished from the profit above defined.

The profits of a concern for any given period are immediately ascertainable if there exists a statement of the liabilities and assets of the concern at the beginning and at the end of the period, together with a note of the sums which may have been withdrawn not connected with the business during the period. Thus, if a merchant's Statement of Affairs shows that at 1st January he had a capital of £500, and at the 31st December of the same year a capital of £600, and it is known that during the year he has drawn from his business for his own personal expenses at the rate of £4 per week, or £208 per annum, it is clear that the profit made during the year has been £308, made up of the increase in the capital, £100, *plus* the expenses of living, amounting to £208. Had the £208 not been

drawn out of the business the capital at 31st December would have been £808, and the difference between this sum and the original capital of £500 gives £308 as the profit, as formerly. In books kept by single entry this, as has already been shown, is the method of arriving at the profit. But, while it is satisfactory to know the amount of profit, it is better also to know exactly how the profit has arisen, so that the turnover and the charges of one year may be compared with those of another year, and the business made even more profitable.

PROFIT AND LOSS ACCOUNTS

THE PROFIT AND LOSS ACCOUNT AS A LEDGER ACCOUNT IS THE ACCOUNT IN WHICH ARE COLLECTED ON THE CREDIT SIDE ALL THE SOURCES OF PROFIT, AND ON THE DEBIT SIDE ALL THE CHARGES INCURRED IN MAKING THE PROFIT DURING A GIVEN PERIOD. IF THE CREDIT SIDE OF THE PROFIT AND LOSS ACCOUNT IS GREATER THAN THE DEBIT SIDE THERE IS A PROFIT, BUT IF LESS THERE IS A LOSS.

When a separate division of this account is kept, under the name of the Manufacturing, or Trading, or Goods Account, the balance of these accounts appears on the credit side of the Profit and Loss Account proper as the gross profit. There is also placed upon the credit side of the Profit and Loss Account in such cases the income from other sources. On the debit side appear the expenses of distribution and the charges of management connected with the general conduct of the business, such as rent, taxes, insurance, office expenses, clerks, advertising, etc.

Sometimes a third division is made in the Profit and Loss Account, to which are carried any extraordinary profits or losses which are quite apart from the usual transactions of the business.

In the final division of the Profit and Loss Account is shown how the profit is apportioned.

In preparing Profit and Loss Accounts with various branches, and in distributing the different items of which they consist under a proper classification and arrangement so as to make the statements the most serviceable which can be produced for the particular business concerned, there is the fullest scope for the skill and judgment of the accountant. However complicated the accounts themselves may be, the Profit and Loss Account and its various branches should be so framed that they almost force one to grasp their salient features. Different businesses require different modifications, so that the accounts of each business may display in the best manner possible the essential elements of the revenue and expenditure of that particular business.

The facts to be ascertained and shown in the Profit and Loss Account and its branches are, shortly :—

1. The turnover of the business, both as a whole and in each department, where the accounts of each department are kept separate.
2. The expenditure, as a whole and in each department, which is directly due to the volume of business done.
3. The gross profit is ascertained, both as regards the whole business and each department, from the above particulars.
4. The expenditure which is due to the establishment or relates to the conduct and management of the business as a whole, and is not so directly due to the turnover, but depends more upon the premises or constitution of the business, and would practically not change much with any change in the turnover.
5. The profit or loss which is due to the business, apart from any alteration that the profit or loss may sustain through the capital being insufficient or excessive. This is arrived at by deducting 4 from 3.
6. The net profit, after making all allowances for interest and discount, which is apportionable to capital.

To attain these results it is necessary to divide the Profit and Loss Account into various sections, and this may be done either by balancing off one account as occasion requires or separate accounts may be opened. Sometimes separate accounts show the division in a clearer

manner than the method of having one Profit and Loss Account with rests.

The Profit and Loss Account and its branches for a given period should contain all the profits for that period, and all the charges incurred or expended in making the profit during the same period. Thus in preparing a yearly Profit and Loss Account of a farm, the whole crop for that year must be included in some form or other on the credit side, and the whole charges incurred in obtaining the crop, including the rent for one year, must be debited. In preparing Profit and Loss Accounts for broken portions of a year, all such charges as rent, taxes, insurance, and other periodical payments, must be apportioned for the period embraced by the account.

THE GOODS ACCOUNT

A GOODS ACCOUNT FOR A GIVEN PERIOD IS AN ACCOUNT SHOWING THE TRANSACTIONS CONNECTED WITH GOODS WHICH HAVE TAKEN PLACE DURING THAT PERIOD.

In an ordinary merchant's business the first division of the Profit and Loss Account is the Goods Account. The Goods Account is opened at the beginning of each financial period by the value of the stock of goods being entered upon the debit side. The purchases during the period are entered upon the debit side, and the sales upon the credit side. Upon the credit side is also entered the value of the goods on hand at the close of the financial period. The difference between the two sides is the gross profit upon the goods if the credit side is the greater, but the loss upon goods if the debit side is the greater.

In the ordinary form of a Goods Account as above explained the stock on hand at the close of the year is entered on the credit side, and has practically the effect of cancelling the cost of these unsold goods which has already been entered on the debit side of the account. This is the most convenient method for book-keeping purposes, but for

purposes of comparison, and to show in the account itself the actual cost of the goods sold, it is necessary to deduct the stock on hand at the end of the year from the debit side of the Goods Account, where is found the value of the stock at the beginning of the year, and the purchases during the year. There is thus shown on the debit side of the Goods Account the actual cost of the goods which have been disposed of during the year. The important factor in a Goods Account is not the cost of the goods which have been purchased during the year, but the cost of the goods which have been used. Thus, suppose at the beginning of the year the goods on hand are valued at £1000, that during the year the price of the goods purchased amounted to £5000, and that at the end of the year the goods were valued at £400, it is evident from the following statement that the actual cost of the goods sold during the year amounted to £5600 :—

Value of goods on hand at the beginning of the year	£1000	0	0
Price of goods purchased during the year .	5000	0	0
Cost of goods in warehouse during the year at one time or another . .	£6000	0	0
Deduct—			
Value of goods on hand at the end of the year	400	0	0
Cost of goods actually used during the year	£5600	0	0

STOCK-TAKING

STOCK-TAKING IS THE EXAMINING, FINDING THE VALUE, AND PREPARING A PRICED INVENTORY, OF GOODS OR MERCHANDISE ON HAND AT A PARTICULAR MOMENT OF TIME.

It is done periodically at each financial balancing time of a business, with the view of the value of the goods on

hand being incorporated in the accounts of the concern. It is also done at other times, such as when a Statement of Affairs of a debtor is required for the information of his creditors, or for inventory and confirmation purposes when the owner of a business dies. The price put upon the goods will thus vary according to the purposes for which the inventory is prepared. Where the object of stock-taking is for the purpose of being incorporated in the accounts of a going concern, the goods should be priced at cost, on the footing that the business is a going concern. In the case of a bankrupt business the values will be such as the stock may be expected to realise under a forced sale. For confirmation purposes the prices are lower.

Raw Material.

In the absence of any extraordinary shrinkage in the market value, raw material should be valued at cost price, *plus* all subsequent direct charges in connection with the goods in stock, such as freight, duty, and the cost of any direct labour expended upon the goods. Where the market value is under this figure, the basis should be market prices.

Partially Manufactured and Completed Goods.

All goods in stock which are partially manufactured or are completed should be valued at the prime cost of the raw material, *plus* the freight, duty, and other direct charges, together with the cost of any direct labour. Sometimes a percentage is added for general management expenses so far as they have been expended in the manufacture of the goods, but it is safer not to do this, as when it is done there is a risk of the profit from the selling of the goods being anticipated.

Goods sold on Commission.

The Goods Account of a merchant who, in addition to his ordinary business, sells goods on commission requires to be carefully adjusted, so that the correct gross profit on

sales, and the ratio of expenses to sales, may be correctly determined. In some concerns commission transactions are kept by themselves, being entered through a Commission Journal, or through special columns in the Purchase Day Book and Sales Day Book. In other concerns, however, the goods sold on commission are entered in the ordinary Purchase Day Book and Sales Day Book, along with the ordinary purchases and sales. Where it is possible to allocate the proportion of expenses due to the commission business it is best to have a separate Profit and Loss Account for goods sold on commission. Where this cannot be done, the assumption must be made that the sales on commission cost the same as the other sales, and the proper method of treating the Goods Account will be seen from the following example. Suppose the ordinary sales amount to £5000, the goods costing £3000, that the goods sold on commission realised £1000, and that the commission amounts to £150. Taking the expenses of the whole business as £1200, the Profit and Loss Account, with the relative percentages, would be as follows:—

PROFIT AND LOSS ACCOUNT for Year.
(*Correct Method.*)

	Per Cent.			Per Cent.	
To Purchases .	60·00	£3000	By Sales . .	100·00	£5000
„ Gross profit .	40·00	2000			
	100·00	£5000		100·00	£5000
To 5000-6000ths of expenses of £1200 . .	20·00	£1000	By Gross profit .	40·00	£2000
„ Profit down .	20·00	1000			
	40·00	£2000		40·00	£2000
To Expenses of commission sales, 1000-6000ths of £1200 .		£200	By Profit on trading .		£1000
„ Net profit . . .		950	„ Commission . .		150
		£1150			£1150

If the sales on commission are not included, then the Profit and Loss Account would appear as follows:—

PROFIT AND LOSS ACCOUNT for Year.

(*Objectionable Method.*)

	Per Cent.			Per Cent.	
To Cost of goods .	60·00	£3000	By Sales . .	100·00	£5000
,, Gross profit .	43·00	2150	,, Commission .		150
		£5150			£5150
To Expenses . .	24·00	£1200	By Gross profit		
,, Net profit . .	19·00	950	brought down.	43·00	£2150
	43·00	£2150		43·00	£2150

In the second Profit and Loss Account the gross profit appears as 43 per cent of the sales, and the expenses as 24 per cent of the sales, whereas the correct percentages should be 40 and 20, as shown in the first Profit and Loss Account. These latter results apply only to the trading exclusive of the commission business; the figures in the first example show that the commission business results in a loss after charging its percentage of expenses.

Arrangement of Profit and Loss Accounts.

A *pro forma* Profit and Loss Account, which is applicable to most businesses, and works very satisfactorily, is given. This form is of great advantage in preparing percentage statements, and in comparing the accounts of different years. A merchant using such divisions is enabled to determine what must be his minimum turnover in order to meet his fixed charges, and may localise any leakage or extravagance in management. He can also ascertain in what directions economies may be effected. The account is divided into four sections, as follows:—

First Section.—THE TRADING ACCOUNT shows on the credit side the total sales, after deducting purely trade discounts and returns. On the debit side is placed the cost of the goods used, including any outlay for the carriage inwards of such goods, and after deducting purely trade discounts on the price. There is also entered on the debit side all expenditure directly connected with the sales, or which reduces the

price realised for the goods, such as commission and salaries of travellers and travellers' expenses, wages of salesmen, carriage outwards of goods sold, and cash discounts allowed on sales. All these charges depend to a large extent upon the turnover. This first section of the account may be headed "Trade Account," and the balance upon it is gross profit, which is carried down to the second section.

Second Section.—The ordinary Business Profit and Loss Account has on the credit side the gross profit, together with any income not directly connected with sales, such as rent of premises, forming part of the heritable property belonging to the concern let to tenants, and revenue in the form of royalties from patents. On the debit side are all the fixed charges not directly connected with the sales, and which do not vary much with the rise or fall of the turnover, such as rent, rates, taxes, salaries of office staff and management. There is also debited in this section business losses, such as loss through bad debts, and any small loss through defalcations. The balance on this section of the account may be looked upon as the ordinary business profit, and is carried down to the next section.

Third Section.—The Net Profit Account has on the credit side the balance brought down from the previous section, being the ordinary business profit for the period. There is also entered on the credit side of this section any income connected with capital, such as revenue from investments belonging to the concern, interest earned, and cash discounts obtained, which depend upon the capital in the concern. This section is debited with charges connected with capital, such as interest on loans. These all depend on and vary with the amount of capital in the business. The balance of this section, being the net profit, is carried down to the next section.

Fourth Section.—The Profit and Loss Appropriation Account. This section is credited with the amount of the unallocated profit from the previous fiscal

period, together with the balance of net profit from the third section. On the debit side is shown how this profit has been allocated, whether in the form of interest on partners' capital, share of profit allocated to capital, or profit reserved for any special purpose. If the business is that of a public company, the dividend paid on the shares is debited to this account, together with any sum carried to the reserve fund, and the balance unappropriated is carried forward, and appears in the next Profit and Loss Appropriation Account.

The form of the account given should be carefully studied, but its utility can only be appreciated in practice. By the use of such divisions, and by comparing the accounts of one year with another, any looseness in the management of a business, or anything which might endanger its stability, can as a rule be at once detected, and measures taken to prevent further loss.

PROFIT AND LOSS ACCOUNT

Method of Division where it is required to compare one Year with another.

Expenditure.		*Income.*	
To Cost of goods used (including carriage inwards, and after deducting purely trade discounts) . £		By Sales (after deducting purely trade discounts) . . £	
,, Expenditure directly connected with sales, or which reduces the price realised for the goods, such as—			
Commission and salaries of travellers, and travellers' expenses			
Wages of salesmen . .			
Wages of porters			
Carriage outwards of goods sold . .			
Cash discount allowed on sales			
Carry forward £		Carry forward £	

	£		£
Brought forward		Brought forward	
To Balance carried down, being gross profit . . .			
	£		£
To Fixed charges not directly connected with sales and not varying much with the turnover, such as—		By Balance brought down, being gross profit .	£
Rent, rates, taxes	£	,, Income not directly connected with sales, such as—	
Repairs and upkeep of offices .		Rent of stores or premises belonging to the business let to tenants . .	
Salaries of office staff and management . .		Revenue from royalties . .	
Depreciation .			
,, Business losses, such as—			
Bad debts . .			
Defalcations .			
,, Balance carried down, being profit on ordinary business .			
	£		£
To Expenses connected with capital, such as—		By Balance brought down, being profit on ordinary business .	£
Interest on loans	£	,, Income connected with capital, such as—	
,, Balance carried down, being net profit .		Revenue from investments . .	
		Interest earned .	
		Cash discounts obtained, which depend upon the amount of capital in the business .	
	£		£
To Allocation of profit:—		By Balance brought down, being net profit .	£
Interest on capital	£		
Profit allocated to capital . .			
Profit allocated to reserve . .			
,, Profit unappropriated, carried forward .			
	£		£

TRADING ACCOUNT

THE TRADING ACCOUNT IS THE SECTION OF THE PROFIT AND LOSS ACCOUNT OF A TRADING CONCERN WHICH SHOWS ON THE CREDIT SIDE THE AMOUNT REALISED FOR THE GOODS SOLD, AND ON THE DEBIT SIDE THE ACTUAL COST OF THE GOODS AND THE EXPENDITURE DIRECTLY CONNECTED WITH SALES.

The cost of the goods includes the cost price of material, freight, duty, and all other outlay incurred in acquiring possession, together with the wages spent in rendering the goods marketable. The goods at the beginning of the period and at the end of the period embraced by the account are entered in some form or other in the Trading Account or one of its branches, in order to charge only the goods actually sold. The goods on hand have not been realised, and it is only the cost of the goods actually realised which should be charged against the price realised. The gross profit shown by the Trading Account is carried to the credit of the next section of the Profit and Loss Account, which is usually called "The Profit and Loss Account," where any income not immediately connected with sales is also shown. On the debit side are the establishment expenses. The profit shown is carried to the next section of the Profit and Loss Account.

The Trading Account shows what is usually called the "gross profit" of a concern, or the difference between the price realised for the goods and the cost of the goods. In some businesses the goods are sold almost in the same condition in which they were purchased, but in other concerns a considerable amount of labour is spent in rendering the goods marketable. On the following page are shown the Trading Accounts of a business having two separate departments, and practically selling the goods in the same condition as when they were purchased.

Example of Trading and Profit and Loss Accounts

HAT AND CAP DEPARTMENT

Trading Account.

Dec. 31.	To Cost of goods :—		Dec. 31.	By Sales (less returns) .	£5000
	Stock at beginning of year .	£1300			
	Purchases during year (less returns) .	3000			
		£4300			
	Deduct— Stock at end of year . .	2100			
		£2200			
	,, Charges . .	200			
	,, Profit and Loss Account, for gross profit .	2600			
		£5000			£5000

HOSIERY DEPARTMENT

Trading Account.

Dec. 31.	To Stock of goods :—		Dec. 31.	By Sales (less returns) .	£600
	Stock at beginning of year .	£200			
	Purchases during year (less returns) .	300			
		£500			
	Deduct— Stock at end of year . .	150			
		£350			
	,, Charges . .	50			
	,, Profit and Loss Account, for gross profit .	200			
		£600			£600

Profit and Loss Account.

Dec. 31. To Rent . .	£200	Dec. 31. By Hat and Cap Department, gross profit . .	£2600
,, Salaries . .	350	,, Hosiery Department, gross profit . .	200
,, Expenses . .	100		
,, Carriages . .	30		
,, Depreciation .	25		
	£705		
,, Balance carried down . .	2095		
	£2800		£2800
Dec. 31. To Interest on loan and bank overdraft . .	£60	Dec. 31. By Balance brought down . .	£2095
,, Balance carried down . .	2185	,, Discount on purchases . .	150
	£2245		£2245
Dec. 31. To Interest on capital :—		Dec. 31. By Balance brought down . .	£2185
W. Watt .	£40		
R. Ross .	30		
	£70		
,, Balance, being net profit divisible as follows :—			
W. Watt, ⅔rds	£1410		
R. Ross, ⅓rd .	705		
	2115		
	£2185		£2185

Manufacturing Accounts

In preparing Manufacturing Accounts the first section of the Profit and Loss Account usually consists of the Manufacturing Account. This account may be in several different forms. In the example given it is used merely for the purpose of ascertaining the cost of manufacturing the goods, and is debited with the cost of raw material used, the wages of production, the rent and taxes of factory, depreciation on machinery, sundry stores, and any other direct charges of manufacture. A Manufacturing Account, however, may also be used for the purpose of showing the profit on the manufacturing department as apart from the trading

department. This is done by crediting the Manufacturing Account with the price at which the goods manufactured could be purchased elsewhere. In the example submitted the next section is the Trading Account, and the other sections are prepared on the lines already indicated.

Manufacturing Account.

Dec. 31.	To Cost of raw material :—			Dec. 31. By Trading Account, being cost of manufacturing	£7710
	Stock at beginning of year	£700			
	Purchases during year	5000			
		£5700			
	Deduct— Stock at end of year	900			
		£4800			
	,, Wages	2500			
	,, Rent and taxes of factory	300			
	,, Depreciation on machinery	60			
	,, Sundry stores	50			
		£7710			£7710

Trading Account.

Dec. 31.	To Manufacturing Account, cost of manufacturing	£7,710		Dec. 31. By Sales	£16,280
	,, Salesmen's salaries	300			
	,, Travellers' salaries and commission	200			
	,, Discount on Sales	300			
		£8,510			
	,, Profit and Loss Account, for gross profit	7,770			
		£16,280			£16,280

Profit and Loss Account.

Dec. 31.	To Rent of warehouse . .	£200	Dec. 31.	By Trading Account, gross profit .	£7770
,,	Salaries of clerks	250			
,,	Depreciation on fixtures . .	120			
,,	Office expenses .	200			
,,	Advertising .	30			
,,	Reserve for bad debts . .	120			
		£920			
,,	Balance carried down . .	6850			
		£7770			£7770
Dec. 31.	To Interest on loan	£50	Dec. 31.	By Balance brought down, being profit on business for year .	£6850
,,	Balance carried down . .	7000	,,	Discount on purchases . .	200
		£7050			£7050
Feb. 5.	To Dividend Account, for dividend at 6 per cent declared to-day	£6,000	Jan. 1.	By Balance brought forward from last year .	£7,600
,,	Reserve fund for amount transferred this day .	1,500	Dec. 31.	,, Balance brought down, being net profit for year	7,000
Dec. 31.	,, Balance . .	7,100			
		£14,600			£14,600

THE TRIAL BALANCE

A TRIAL BALANCE IS A STATEMENT OF THE LEDGER ACCOUNTS PREPARED AFTER THE BOOKS OF A CONCERN HAVE BEEN POSTED UP, BUT BEFORE THE CLOSING ENTRIES ARE MADE, SHOWING IN TWO PARALLEL MONEY COLUMNS EITHER THE TOTAL OF THE DEBIT AND THE TOTAL OF THE CREDIT SIDE OF EACH LEDGER ACCOUNT, OR THE DIFFERENCE BETWEEN THE DEBIT SIDE AND THE CREDIT SIDE OF EACH LEDGER ACCOUNT.

There are thus two methods of preparing a Trial Balance.

First Method. By abstracting the totals of the debit and credit sides of each Ledger Account.—The Trial Balance may be prepared by abstracting the totals of the postings to the debit side of each Ledger Account and the totals of the postings to the credit side of each Ledger Account. By this means the books are not only brought to a balance, but, should the totals of the two sides of the Trial Balance not agree, the error may be localised to the one side or to the other side of the Trial Balance, as by summing the totals of the different books of original entry and taking account of the balances at the beginning of the period it can be ascertained what the totals of the Trial Balance should amount to.

Second Method. By abstracting the Ledger Balances.—The second method, by the abstraction of the balances of each Ledger Account, has the additional advantage over the first method that from it, as it gives the differences between the two sides of each of the Ledger Accounts, the preparation of the final Balance Sheet and of the balancing of the books, once the Trial Balance is found to agree, is facilitated. By this second method the risk is greater of the Trial Balance not balancing at first, in consequence of the risk there is of making mistakes in subtracting the two sides of each Ledger Account. By the addition of two money columns to the first method the Trial Balance on the basis of the second method may be at once formed, immediately the Trial Balance by the first method is found to agree.

While the agreement of the debits and credits of the Ledger Accounts is not a positive proof of the correctness of the Ledger, certainly without the totals balancing it is positively known that the Ledger Accounts cannot be correct. A Trial Balance should invariably be drawn up before making the closing entries and preparing the Profit and Loss Account of a concern.

In most businesses it is desirable that a Trial Balance should be taken at regular intervals. Thus, in businesses where the accounts are only balanced off finally and a Profit and Loss Account prepared once a year, it is often desirable to have a Trial Balance of the books quarterly, or even monthly. In the case of banks there is usually a Trial

Balance taken weekly. In the case of merchants where it is desirable that the position of the accounts should be regularly brought before the principals of the business, it is advisable to take a Trial Balance monthly. In the case of traders and manufacturers a quarterly or half-yearly Trial Balance is usually found sufficient. Where a regular Trial Balance is taken and the accounts do not vary much, it is of advantage to have a Trial Balance Book ruled with two, four, or twelve sets of money columns on each page. By this means the names and folios of each account need not be rewritten at each period of balancing.

The connection between the Trial Balance, Profit and Loss Account, and Balance Sheet.

In order to show the connection between the Trial Balance, Profit and Loss Account, and the Balance Sheet, and to demonstrate the close relation which they bear to one another, there is given a statement showing how in the transactions of William Wood the Profit and Loss Account and Balance Sheet are derived from the Trial Balance and the particulars taken at stock-taking. The preparation of such statements will be found very useful in enabling the student to acquire a complete mastery of the principles of book-keeping. It will be observed that the Trial Balance is not the same as that already submitted, but that the differences between the two sides of each Ledger Account, or the balances, are given instead of the totals of each side. The Trial Balance shows that there is a sum at the credit of Goods of £100; to this sum is added the value of the stock in hand at 31st December, amounting to £700, making in all £800 as the gross income from Goods to be entered in the Profit and Loss Account. In the case of rent, which is given as an example of a Charges Account, the Trial Balance shows a debit balance of £50, which is the amount which has been actually paid during the year. At the time of stock-taking there is £20 due for rent, which, being added to the £50 paid, makes £70 as the total charge for the year to be entered in the Profit and Loss Account. It will well repay

The Trial Balance, Profit and Loss Account, and Balance Sheet in one connected Statement

Ledger Folio.	Ledger Accounts.	Trial Balance as at 31st Dec.		Stock-taking, 31st Dec.		Profit and Loss Account for Year.		Balance Sheet as at 31st Dec.	
		Dr.	*Cr.*	Charges outstanding.	Stock.	Expenditure.	Income.	Assets.	Liabilities.
	J. Collins	£300 0 0						£300 0 0	
	W. Simpson	650 0 0						650 0 0	
	Jack & Co.		£370 0 0						£370 0 0
	Scott & Tait		230 0 0						230 0 0
	Bills payable		280 0 0						280 0 0
	Bills receivable	300 0 0						300 0 0	
	Goods		100 0 0		£700 0 0		£800 0 0	700 0 0	
	Rent	50 0 0		£20 0 0		£70 0 0			20 0 0
	Wages	200 0 0				200 0 0			
	Discount	20 0 0				20 0 0			
	Capital		700 0 0			510 0 0			1210 0 0
	Bank	95 0 0						95 0 0	
	Cash	65 0 0						65 0 0	
		£1680 0 0	£1680 0 0	£20 0 0	£700 0 0	£800 0 0	£800 0 0	£2110 0 0	£2110 0 0

the student if he has worked out a set of business transactions in the ordinary way, and has prepared therefrom a Profit and Loss Account and Balance Sheet, to prepare such a statement as that shown, as he will thereby get a proper grasp of the close relationship which exists between the Trial Balance, as modified by the stock-taking, and the Profit and Loss Account and Balance Sheet.

Assets.

The assets of a business consist of all the property and rights belonging to the business which have a money value. Business assets may be divided into floating assets and fixed assets.

Floating assets are those which may be sold or realised without interfering with the plant or machinery of a business or its business operations, as cash, goods, customers' accounts, and bills receivable. So far as floating assets are available as funds out of which current obligations may be met, they form the working capital of a business.

Fixed assets are those which represent capital sunk in a business in the form of plant, machinery, or ground, such as buildings, railway lines, and all fixed machinery.

Sometimes business assets are divided into three, as follows :—

1. Permanent, as heritable property
2. Wasting, as machinery.
3. Floating, as given above.

Liabilities.

The liabilities of a business consist of all the sums due to outside creditors as distinguished from the sums due to the partners or shareholders. Business liabilities may be divided into floating liabilities and fixed liabilities.

Floating liabilities are those claims by creditors which will have to be met within a short period, such as creditors' accounts, bills payable, and bank overdrafts.

Fixed liabilities are those permanent obligations of a concern which are not usually paid off till the concern

is wound up, such as debenture debt and mortgages. Liabilities may be classed into :—

On open accounts.

On bills payable ; by the debtor accepting a bill the amount of the debt is fixed, and, as a rule, the date of its repayment.

A preferable liability or claim is one which has a preference of payment over other debts, as Crown taxes.

A secured liability is one in respect of which the creditor is entitled to receive payment out of the security which he holds.

A contingent liability is one in respect of a claim which has not yet arisen, but of which there is some probability.

Capital.

The student of accounting will have done well if he has read Adam Smith's *Wealth of Nations.* The definition given by Adam Smith of Capital is that it is wealth set aside for productive purposes. Wealth so employed to produce a surplus or profit to the industrial community is distinguished as "social capital." From a commercial point of view capital is wealth employed to yield a profit, including in the term "profit" interest on money lent, and may be called, in contradistinction to social capital, "individual capital." Thus money lent to a spendthrift to be used for his own personal gratification may be classed under the heading of "individual capital" so far as the lender is concerned, but not being used for the benefit of the community is not "social capital."

THE CAPITAL OF A BUSINESS CONCERN AT A PARTICULAR MOMENT OF TIME MAY BE DEFINED, FOR PURPOSES OF ACCOUNTING, AS THE SURPLUS OF THE ASSETS OF THE CONCERN OVER THE LIABILITIES TO THE CREDITORS OF THE CONCERN. If this definition is applied to the Balance Sheet of a joint-stock company it would include as capital not only the money subscribed by the shareholders, but also any reserve fund, together with the undivided profit of the company. While from an economic point of view this would be correct, in such cases the word "capital" is usually restricted to the paid-up capital only.

BALANCE SHEETS

A BALANCE SHEET IS A CONCISE STATEMENT COMPILED FROM THE BOOKS OF A CONCERN WHICH HAVE BEEN KEPT BY DOUBLE ENTRY, SHOWING ON THE ONE SIDE ALL THE LIABILITIES AND ON THE OTHER SIDE ALL THE ASSETS OF THE CONCERN AT A PARTICULAR MOMENT OF TIME.

It is prepared for the purpose of showing the financial condition of the concern at the particular moment of time, and should be so classified and arranged as to give the clearest and fullest idea of the financial condition of the concern. The balances shown by the Trial Balance having been adjusted by the closing entries giving effect to the valuations of stock, unexpired charges, reserves, and other particulars, the balances remaining are liabilities so far as they are credit balances, and assets so far as they are debit balances. The customers and creditors, and other items involving many items, are not given in the Balance Sheet in detail, but are contained in separate schedules or lists, or in a Balance Book kept for the purpose. If the assets exceed the liabilities the Balance Sheet shows a surplus, which is due to the owner or owners of the business, and forms the capital of the concern. Capital is therefore the surplus of assets over liabilities, or the measure of the indebtedness of a business to the owners in respect of money invested in the business and accumulated profits. It is the principal sum invested or remaining in a business. Book-keeping is so complete and thorough that even the owner of a business is looked upon as an outsider, and his account, called the Capital Account, is credited with what he puts into the business, because, as he means to get back again what he puts in, he becomes a creditor of the business for it, and he also gets credit for any profit the business earns, as he is entitled to that also. The Capital Account was formerly sometimes called the Stock Account, but this use of the word "stock" is now almost obsolete,

and it is as well, to prevent confusion, to keep the word "stock" for the goods and merchandise.

In the case of a company, as for example one registered under the Companies Act of 1862, where the capital is fixed, the surplus of assets over liabilities may consist of the capital, of a reserve created for the benefit of the shareholders and the stability of the company, and of the unappropriated or undivided profit.

If the liabilities exceed the assets the Balance Sheet shows a deficiency, and the amount of the deficiency is the measure of insolvency of the concern, or the indebtedness of the owners to the business for losses incurred. THE BALANCE SHEET MAY THUS BE DEFINED AS A STATEMENT OF THE LIABILITIES OF A CONCERN (CREDIT BALANCES AS TAKEN FROM THE LEDGER), INCLUDING THE CAPITAL, RESERVE, AND UNAPPROPRIATED PROFIT, ON THE ONE SIDE, AND THE ASSETS OF THE CONCERN (DEBIT BALANCES AS TAKEN FROM THE LEDGER), INCLUDING ANY DEFICIENCY, ON THE OTHER.

The main distinction between a Profit and Loss Account and a Balance Sheet is that the Profit and Loss Account shows the progress of the business during a period of time, while the Balance Sheet shows the position of the concern at a particular moment of time. The difference is similar to that between a biography and the portrait of an individual.

On which Side of the Balance Sheet the Assets should be placed.

When a book-keeper has completed those entries known as "closing" entries, including the preparation of the Profit and Loss Account, and has balanced off all the Ledger Accounts, carrying down the balances to begin the accounts for the next year, he usually prepares a Statement of the Ledger Balances, arranging all the debit balances in the left money column, and all the credit balances in the right money column, in some such form as the following, which is the Balance of the books of William Wood :—

STATEMENT OF LEDGER BALANCES as at 31st December

	Dr.			Cr.		
	£	s.	d.	£	s.	d.
CUSTOMERS' LEDGER :—						
J. Collins	300	0	0			
W. Simpson	650	0	0			
	950	0	0			
CREDITORS' LEDGER :—						
Jack & Co.				370	0	0
Scott & Tait				230	0	0
				600	0	0
GENERAL LEDGER :—						
Bills payable				280	0	0
Bills receivable	300	0	0			
Goods	700	0	0			
Rent				20	0	0
Capital				1210	0	0
BANK OF SCOTLAND	95	0	0			
CASH ON HAND	65	0	0			
	2110	0	0	2110	0	0

It will be observed that in the foregoing statement all the balances of the accounts appear just as they are in the Ledger after the balances have been carried down, that is, the debit balances are entered in the debit column and the credit balances in the credit column. The particulars above given in the Statement of Ledger Balances, if thrown into the form of a Balance Sheet, would appear as follows :—

BALANCE SHEET as at 31st December.

(Correct Form.)

Assets.				*Liabilities.*			
Due by customers	£950	0	0	Due to wholesale houses	£600	0	0
Bills receivable	300	0	0	Bills payable	280	0	0
Goods on hand	700	0	0	Rent accrued to date	20	0	0
In Bank of Scotland	95	0	0		£900	0	0
Cash on hand	65	0	0	Capital	1210	0	0
	£2110	0	0		£2110	0	0

In the above Balance Sheet it will be observed that the assets appear on the left side and the liabilities on the right

side of the statement, just as they appear in the Ledger. It will be observed further that the contractions *Dr.* and *Cr.*, for debtor and creditor, are not used as part of the heading. This is because the Balance Sheet is best regarded not as an account but as a Statement of Ledger Balances. In a set of books kept completely by double entry, and in which even the balancing of the accounts is done through the medium of the Journal, an account is used entitled the "Balance Account," into which all the balances are transferred at the close of the year, and in which the Ledger Accounts would appear as they are given in the above Statement of Ledger Balances. For the opening entries a Balance Account would also be used, but the items would necessarily appear on opposite sides from the closing Balance Account. The Balance Sheet, if given in the form above shown, is thus practically a copy of the closing Balance Account. From this point of view the assets should undoubtedly be placed on the left side of the Balance Sheet, which corresponds to the debit side of the closing Balance Account. Further, all balances which represent assets are debit balances, and accountants naturally come to associate assets with the debit or left side of either an account or a statement. So that theoretically the left side is the side upon which the assets should appear in the Balance Sheet. In practice, however, the assets are usually to be found upon the right side, and it may prove interesting as well as instructive to investigate the matter further. The fundamental idea of a Balance Sheet is that it is a statement showing how the Ledger Accounts of a concern stand at a particular moment of time. It would be unnecessary if we could see and comprehend at one view the contents of a set of ledgers. As we are unable to do this we prepare a Balance Sheet, but why in the process the assets which are on the debit side and the liabilities which are on the credit side, as according to the principles of accounting they ought to be, should change places, it is impossible to justify. The custom seems to have arisen through the influence of the forms given in Acts of Parliament, chiefly the Companies Act, 1862, which must have been

prepared by those unacquainted with the theory of accounts. The Profit and Loss Account is taken from the Ledger, and the sides are not transposed, and there is no logical reason why the sides in the Balance Sheet should be reversed when the items in it are supposed to be the balances remaining in the Ledger, after certain balances have been taken to the Profit and Loss Account. In the accounts of public undertakings, such as railways, formed under the sanction of Acts of Parliament, when the receipts and expenditure on account of capital must be published, the Capital Account, in the form prescribed, has the items as they appear in the Ledger, but the Balance Sheet, the form of which is also prescribed, has the items reversed. The form of Balance Sheet in which the assets appear upon the left side is both theoretically the correct form and in practice is the most convenient form to use. It is the form adopted on the Continent, in America, and, in fact, throughout the world, with the exception of the United Kingdom. Until recent years it was the form almost universally adopted in Scotland. Prior to about the passing of the Companies Act, 1862, it was the form chiefly adopted in England, but is so no longer. It is known by the name of the Continental or Scotch form. The form prescribed in the original Table A of the Companies Act, 1862, had the liabilities on the left side, and this form has now been generally adopted throughout the United Kingdom. The Scotch form, however, is still largely used in Scotland, even for companies under the Companies Acts, which apply to Scotland. The practice is so diverse that there are firms of accountants in which one of the partners invariably uses one form and the other partner as invariably the other. It is certainly most desirable that the form of Balance Sheet with the assets on the left side, which is founded on correct principles, should become universal, but this could now, in view of existing statutes where the form which is contrary to the true principles of accounting is prescribed, only be brought about by an Act of Parliament. Such an Act would no doubt cause a little temporary inconvenience, but this would be nothing compared to the advantage of having

all Balance Sheets uniform and conforming to the best traditions, and the accepted practice of the rest of the world. As, however, it is most desirable that uniformity should be observed, and considering that by certain Acts of Parliament and Orders by the Board of Trade and Local Government Boards forms are prescribed in which the liabilities appear on the left side, and as, after all, when one gets used to the form there is no risk of confusion, the student should adopt the English form always. It is supported on the ground that, as the Balance Sheet is the account of a concern, that concern should be credited with all the assets and debited with all the liabilities of the concern. The objection to this is, that the statement is not an account at all but a balance or abstract of the ledger balances. Whichever form is used, the contractions "Dr." and "Cr." should never be put upon a Balance Sheet, because, as already stated, it is not an account. The simplest way of avoiding confusion on this point when dealing with Balance Sheets is to regard every Balance Sheet as a Schedule consisting of two parts set side by side, one part setting out the Assets and the other the Liabilities, and to abstain from regarding the items on the two sides as either debits or credits, but to look upon them as merely assets and liabilities as designated by the list-headings.

A Full and Fair Balance Sheet.

The Companies Act of 1862 did not specially state how the Balance Sheet of a company was to be prepared, but the original Table A or model Articles of Association appended to the Act laid down in Clause 81 that the Balance Sheet should contain "a summary of the property and liabilities of the company arranged under the heads appearing in the form annexed" to that table, or as near thereto as circumstances admitted. The form referred to in this clause was not included in the Revised Table A issued by the Board of Trade on 30th July 1906. Clause 94 of the original Table A laid down that the auditors' report should state whether in their opinion the Balance Sheet was "a full and fair Balance Sheet" containing

the particulars required by the company's Articles and "properly drawn up so as to exhibit a true and correct view of the company's affairs." Section 21 of the Companies Act, 1907, prescribes that every public company registered under the Companies Acts shall file a copy of its annual Balance Sheet, giving such particulars as will disclose how the value of its fixed assets have been arrived at. The phrase "full and fair Balance Sheet" is still retained in Auditors' Reports on company Balance Sheets.

The Balance Sheet, whether of a company or of a private concern, should be, as mentioned above, "full and fair." All the assets should be stated at their fair value, and the liabilities should be fully shown. The Balance Sheet should not conceal any weakness in the financial position of the concern, but should give the fullest information to the shareholders and the general public, consistent, of course, with the proper conduct of the business. In some cases it might be advisable not to reveal too much in consequence of the competition of similar concerns, but what is really the failing of Balance Sheets is that they reveal too little and not too much. The Balance Sheet formerly given in the Scotch form is now given in the English form, but it has been varied slightly to show a better method of grouping the assets, and it has further been assumed that the Balance Sheet is that of a company with a paid-up capital of £700.

BALANCE SHEET as at 31st December.

(*English Form.*)

Liabilities.				*Assets.*			
DUE TO CREDITORS—				DUE BY CUSTOMERS—			
On open accounts .	£600	0	0	On open accounts .	£950	0	0
On bills payable .	280	0	0	On bills receivable .	300	0	0
	£880	0	0		£1250	0	0
RENT ACCRUED TO DATE	20	0	0	GOODS ON HAND .	700	0	0
DUE TO SHAREHOLDERS—				CASH—			
Capital . . £700				In bank . £95			
Undivided profit 510				On hand . 65			
	1210	0	0		160	0	0
	£2110	0	0		£2110	0	0

The following might have been the Profit and Loss Account of this company for the year:—

PROFIT AND LOSS ACCOUNT for the Year.

Expenditure.		*Income.*	
To Cost of goods	£2200 0 0	By Sales	£3000 0 0
,, Rent	70 0 0		
,, Wages	200 0 0		
,, Discount	20 0 0		
,, Profit for year	510 0 0		
	£3000 0 0		£3000 0 0

If the Balance Sheet in the English form and the Profit and Loss Account of this company were printed in the annual report to the shareholders, as is usually the case, it will be observed that the net profit of £510 would appear on the left side of the Balance Sheet, and also on the left side of the Profit and Loss Account. It is more in keeping with our ideas of book-keeping by double entry that these items should appear on opposite sides, as they would do if the Scotch form of Balance Sheet were adopted.

Arrangement of Balance Sheets.

Much skill may be displayed in grouping the various items of a Balance Sheet so as to give the fullest information in the form in which it will be most readily understood, and most available for the purposes for which the Balance Sheet is to be used.

In arranging the assets a very good rule is to place them in the order in which they are easiest of realisation; that is, to begin with the assets which are most easy to realise, and conclude with those which would be most difficult to realise. Under this method the most available asset, namely cash, whether in hand or in bank, would come first, although it is often placed last on the footing that it is an asset which is already realised and is on hand, available to meet any of the liabilities. As cash, whether in bank or in hand, is equally available, the amount in bank and in hand should, although shown separately,

be added together and appear under one leading heading. Any investments, which could be immediately realised, would follow the cash. The amount due by customers or trade debtors should come next, and, under branch headings, the amount due by customers in respect of bills receivable and on open accounts should be shown separately, as a debt due under a bill receivable is more directly available to liquidate any liability, and is less likely to be successfully disputed, than a debt due on an open account. The open accounts should be classified into "good" and "doubtful," and any provision or reserve for loss, either through bad debts or discount, should be deducted from the total before carrying out the amount into the main column. Goods on hand which are manufactured or ready for sale come next. Then goods which are in process of manufacture and to be used in manufacturing and stores. Thereafter the value of fixed plant, machinery, and other similar assets should be given in detail, and any additions on account of expenditure during the period embraced by the accounts, and deductions in respect of depreciation, should be shown. Any heritable property, whether in land or buildings, would come next. Thereafter the less real and more speculative assets may be given, if there are any, such as patent rights, copyrights, and goodwill.

The liabilities due to outside creditors should be stated before the liabilities to shareholders or owners of the business, although in the form prescribed by Table A, and already referred to, this was not done. The liabilities to the public should be stated in the order of priority of the claims, or of the powers the creditors have of enforcing them. The amount due to unsecured creditors should be given first, and it is well to show separately the amounts due to creditors under bills payable and on open accounts. The sundry unpaid but accrued charges for rent, taxes, wages, etc., should come next. Mortgages against heritable property sometimes appear among the assets as deductions from the property conveyed in security, but it is better as a rule in the accounts of a going concern to show them among the liabilities. Borrowed capital, whether in the form of

BALANCE SHEET as at

Liabilities.		*Assets*		
TRADE CREDITORS :—		CASH—		
Due under bills payable.	£	On hand . . .	£	
Due on open accounts .		In bank . . .		
	£			£
SUNDRY CHARGES ACCRUED TO DATE :—		INVESTMENTS . . .		
Rent . .	£	DUE BY CUSTOMERS :—		
Taxes . .		Bills receivable . .	£	
Wages, etc. .		Open accounts :—		
LOANS OVER HERITABLE PROPERTY :—		Good .		
Amount due over the security of	£	Doubtful .		
Interest due and accrued .			£	
OTHER LOANS (including interest to date) . .		*Deduct*— Reserve for discount and bad debts. .		
Amount due to outside creditors . . .	£	STOCK ON HAND AS VALUED BY		
DUE TO SHAREHOLDERS :—		Manufactured goods . .	£	
Capital .	£	Goods in process of manufacture .		
Reserve .		Raw material		
Profit .		Stores . .		
Were there a debit balance on the Profit and Loss Account, such debit balance should be deducted from the amount due to shareholders.		PLANT, MACHINERY, etc. :—		
		Amount in last Balance Sheet . .	£	
		Expended since . .		
			£	
		Deduct— Depreciation .		
		HERITABLE PROPERTY :—		
		Land . .	£	
		Buildings .		
		GOODWILL and other assets of an indeterminable or contingent value .		
	£			£

ordinary loans on personal security or debentures, should then be detailed. After stating all the liabilities to outside creditors, and showing the total due to such creditors by summing the amounts, the amount due to partners or to shareholders should be given separated into capital, reserve and undivided or unallocated profit. The liabilities and capital should never be stated and summed altogether as one, but the amount due to outside creditors and to the shareholders should be shown separately. In the case of a limited company a debit balance on the Profit and Loss Account should not be entered among the assets, but should be deducted from the capital or other sums due to the shareholders.

THE DOUBLE ACCOUNT FORM OF BALANCE SHEET

The double account form of Balance Sheet, as it is called, which is prescribed for companies formed to undertake public works under sanction of Acts of Parliament, is of some interest. Its distinctive feature is that, since the money authorised to be spent is provided for a specific purpose, such as the construction of a railway, the fixed assets and fixed liabilities are separated from the floating assets and floating liabilities of the concern. The fixed assets and fixed liabilities are kept in an account called the Receipts and Expenditure on Capital Account, and the floating assets and floating liabilities form the General Balance Sheet of the concern. The Capital Account is credited with the capital receipts, whether in the form of share capital or loan capital, and is debited with the capital expenditure incurred in acquiring the property or constructing the works for which the capital receipts were expressly authorised by the special Act of Parliament to be received. The excess of the capital receipts over the amount expended as capital expenditure shows the amount of the capital receipts which have not been applied to their specific purposes and are still available; while any excess of capital expenditure over capital receipts shows the

expenditure of revenue in fixed assets in addition to the capital receipts authorised to be so spent. The balance of the Capital Account is carried to the General Balance Sheet, and represents either the indebtedness of capital to revenue or revenue to capital. In such cases the ordinary rules for the valuation of assets do not apply. The capital is raised for a certain purpose, and must be expended on that purpose. The Capital Account is for the purpose of seeing that the money contributed for any public work is used for the construction of such works. The idea is that no further sums should be spent on such capital expenditure once the total has been expended, but that the works should be kept in repair and in a state of efficiency out of the revenue receipts. Parliament having made these provisions thought it unnecessary to stipulate for the periodical valuation of the works themselves, and practically said that as these works would be permanently carried on they might be valued at their initial cost, and this Capital Expenditure Account will show how much they have cost and what proportion of the sum authorised to be borrowed or received by the company from its shareholders is still on hand.

Even, however, in accounts kept upon the double account system, allowance for depreciation may be made in the General Balance Sheet, where the floating assets and liabilities are shown as distinct from the capital assets and expenditure shown in the Capital Account. While the Act under which the Capital Account is kept makes no provision for depreciation, a Depreciation Account may be formed out of available revenue, and the balance of this account will fall to be included as a liability in the General Balance Sheet. It should be remembered, however, when fixed assets are maintained out of revenue, as is done in such undertakings, that an annual depreciation provision is unnecessary; the limit of such provision is the sum required to bring down the book values of the assets to their second-hand values, at which they are maintained in efficiency. The figures in the example should be read as thousands of pounds instead of pounds.

Example of Double Account Form of Balance Sheet

RAILWAY COMPANY

Receipts and Expenditure on Capital Account.

Dr. *Cr.*

To Expenditure:—	Amount expended to 30th June.	Amount expended half-year to 31st Dec.	Total.	By Receipts:—	Amount received to 30th June.	Amount received half-year to 31st Dec.	Total.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
On lines open for traffic . .	38,000 0 0	2000 0 0	40,000 0 0	Shares and stock	40,000 0 0		40,000 0 0
On lines in course of construction . .	900 0 0	100 0 0	1,000 0 0	Loans . .	5,000 0 0		5,000 0 0
On working stock	5,000 0 0	1000 0 0	6,000 0 0	Debenture stock	2,000 0 0	1000 0 0	3,000 0 0
Subscriptions to other railways	1,000 0 0		1,000 0 0		47,000 0 0	1000 0 0	48,000 0 0
Docks, boats, and other special items . .	2,000 0 0		2,000 0 0	,, Balance carried to General Balance Sheet .			2,000 0 0
	46,900 0 0	3100 0 0	50,000 0 0				
			50,000 0 0				50,000 0 0

G

GENERAL BALANCE SHEET as at 31st December.

Liabilities.				*Assets.*			
Net Revenue Account	£1000	0	0	Capital Account—balance at debit	£2000	0	0
Unpaid dividends and interest	10	0	0	Cash at bankers, current account	300	0	0
Guaranteed dividends and interest payable	100	0	0	Consols and Government securities	3000	0	0
Temporary loans	400	0	0	Shares of other companies not charged as capital expenditure	1000	0	0
Debts due to other companies	1000	0	0	General stores, stock, and material in hand	1000	0	0
Sundry outstanding accounts	3300	0	0	Traffic accounts due to the Company	500	0	0
Fire insurance fund on station works and buildings	90	0	0	Amounts due by other companies	20	0	0
Insurance fund on steamboats	100	0	0	Amounts due by Clearing House	30	0	0
Depreciation Account	2000	0	0	Amounts due by Post Office	10	0	0
				Sundry outstanding accounts	140	0	0
	£8000	0	0		£8000	0	0

STATEMENTS OF AFFAIRS AND STATEMENTS OF ASSETS AND LIABILITIES

A STATEMENT SHOWING THE ASSETS AND LIABILITIES OF A CONCERN WHICH IS NOT PREPARED FROM A SET OF BOOKS PROPERLY KEPT ON THE PRINCIPLES OF DOUBLE ENTRY WHERE ALL THE LEDGER ACCOUNTS ARE BROUGHT TO A PERFECT BALANCE, BUT IS PREPARED, EITHER WHOLLY OR PARTLY, FROM INFORMATION GOT OUTSIDE OF, AND NEVER INCORPORATED COMPLETELY IN, LEDGER ACCOUNTS, IS CALLED A "STATEMENT OF AFFAIRS."

A Statement of Affairs and a Balance Sheet are often confused, but, while both statements deal with the same subjects, it is best to keep strictly to the definitions which have been given. A further distinction is also desirable between a Statement of Affairs of a solvent concern and such a state when prepared of a bankrupt concern for the information of creditors. The Statement of Affairs prepared

of a solvent concern, where the books are kept by single entry, is best designed as a Statement of Assets and Liabilities. A Statement of Affairs for creditors, being prepared for a special purpose, is further removed in form from the Statement of Assets and Liabilities of a going concern than a Balance Sheet, of which they are both varieties. When it is proposed to place the books of a concern on a proper footing, which have not hitherto been kept by double entry, a Statement of Affairs or Statement of Assets and Liabilities is prepared on the same lines and showing the same facts as a Balance Sheet would have done had proper books been kept, and from this statement the new set of books is properly opened.

Statement of Affairs of a Bankrupt.

A Statement of Affairs of a bankrupt, when prepared for the information and guidance of the creditors, is best arranged slightly differently from an ordinary Statement of Affairs of a going business. Such a statement should show on the one side, under appropriate heads, all the liabilities of the business at the date of the state, whether actual, provisional, or contingent, distinguishing whether these liabilities are preferable or ordinary, or are secured partly or wholly by certain of the assets of the concern being held by certain of the creditors, in security of their claims. On the other side all the assets of the concern should be shown, valued either on the footing that the business is a going concern, at break-up prices, or on some other fixed principle of valuation, according to the purpose for which the statement is required. Such a statement should show clearly these assets which are free to be divided among the ordinary unsecured creditors and those which are subject to special liabilities or claims, which must be liquidated out of such assets before the balance of the amount realised for these assets is available to meet the claims of the ordinary creditors. Sometimes it is advisable for the accountant to submit a Statement of Affairs prepared on the footing of the business as a going concern, together with a similar statement on a break-up basis. The Statement of Affairs

is specially prepared with the view of revealing the condition of the affairs of a concern and the probability of the different creditors, preferable, secured, partly secured, and ordinary, receiving payment in full or having to accept a dividend on their claims. In preparing such a statement, therefore, an investigation is required which goes beyond ordinary book-keeping, but it is usually most satisfactory if the statement is prepared on the basis of the properly balanced books of the concern, and supplemented from other sources.

The statement should contain not only all the liabilities that may appear on the debtor's books, but all others which may be enforcible, and even contingent claims, such as any liability through the bankrupt's name being upon bills of exchange which have been discounted by the bankrupt, or otherwise put into circulation with his name upon them, and which may not be met at maturity, should be included.

Preferable claims for taxes, rent, wages and salaries, so far as they are preferable and require to be paid in full out of the assets of the estate, should be deducted from the assets in order to show the net estate available for division among the ordinary creditors, although the details of all such preferable claims should be entered among the liabilities but not included in the total.

The claims of fully secured creditors are entered on the Liabilities side, but the amounts are not carried out to the total column, but are deducted from the assets forming the specific security held, the balance only of these assets, being the amount not required to meet the claims, is available for the ordinary creditors, and is entered in the Assets column. Claims partly secured are entered among the liabilities, and the amount to which they are secured is deducted from them, and the balance which is unsecured and which will fall to receive a dividend with the unsecured creditors appears in the Total Liabilities column. The corresponding asset appears in detail among the assets, but its value is not extended in the Total Assets column. The object of these adjustments is to show clearly the net assets which will be available for the ordinary creditors, and the total amount of the claims of the ordinary creditors which will come against the available assets.

A Statement of Affairs should always have appended to it schedules showing the fullest particulars of the different entries which appear in the state in slump. Thus the names and addresses of the creditors should be given, the nature of the debt, whether a trading debt or for borrowed money, and the particulars of any security held.

The assets of an insolvent estate are usually more difficult to ascertain and value than the liabilities. Even where the book or nominal valuation can be ascertained, it is usually necessary to write down that value considerably, to show what will be the amount likely to be received. The bankrupt himself is often of great help in such matters, but it is often advisable, in order that the creditors may have before them a statement which they can rely upon as giving a correct view of the estate, for the accountant to call in an expert who, from his personal knowledge and experience, is in a position to fix accurately the value of the assets on the footing of the business as a going concern, or to determine their break-up value. It is always desirable to show the nominal or book value of the assets, together with what they may be expected to produce on realisation, as it enables the amount of the difference which is due to a forced realisation to be determined. The book debts should be classified into good, doubtful, and bad. The doubtful debts are included at the figure they are expected to produce, and the bad are of course merely shown upon the face of the state, but are not included in the addition of the assets.

The assets most readily realisable are placed first, and those least realisable last in the state. The dividend shown to the ordinary creditors, exclusive of expenses of realisation, is given in a note. In the case of the insolvency of an individual, his private assets, such as his household furniture, his life policy, and the value of any expectancy he may have to succeed to property, must be included in his Statement of Affairs.

From the Statements of Affairs submitted the above explanations will be better understood, but the efficiency of the method of displaying all the assets and liabilities at one glance, and of the various deductions and cross references, can only be appreciated and learned in actual practice.

T. BROWN & CO.,

STATEMENT OF AFFAIRS

Showing the Gross Liabilities, the Liabilities expected Ordinary Creditors, the Cost or Book Value of the Assets,

LIABILITIES

		Gross Liabilities.	Expected to rank.
		£ s. d.	£ s. d.
ORDINARY UNSECURED CREDITORS :—			
Trade creditors		8,000 0 0	8,000 0 0
Loans		2,000 0 0	2,000 0 0
		10,000 0 0	10,000 0 0
CREDITORS ON HERITABLE BOND FULLY SECURED		7,000 0 0	
Deducted from Assets.			
CREDITORS PARTIALLY SECURED	£1300 0 0	1,300 0 0	
Deduct—			
Value of security per Assets	1000 0 0		
			300 0 0
CONTINGENT LIABILITY in respect of bills discounted by Bankrupt, and accommodation bills, to amount of £8000, of which there will rank on this estate		1,500 0 0	1,500 0 0
PREFERABLE CLAIMS :—			
Rates and taxes	£60 0 0		
Wages	50 0 0		
Rent	100 0 0		
Deducted from Assets	£210 0 0	210 0 0	
		20,010 0 0	
			11,800 0 0

MERCHANTS, LONDON

as at 31st December.

to rank against the Assets available for division among the
and the Amount the Assets are estimated to realise.

ASSETS

		Cost or Book Value.	Estimated to realise.
		£ s. d.	£ s. d.
CASH :—			
On hand		30 0 0	30 0 0
In bank		250 0 0	250 0 0
		280 0 0	280 0 0
GOODS		1,300 0 0	950 0 0
CUSTOMERS' ACCOUNTS :—			
Good	£4000 0 0		
Doubtful (estimated to realise £100)	650 0 0		
Bad	1200 0 0		
	£5850 0 0	5,850 0 0	4,100 0 0
MACHINERY, FITTINGS, FIXTURES, UTENSILS, ETC.		3,000 0 0	1,000 0 0
HERITABLE PROPERTY		12,000 0 0	
Valued at	£9000 0 0		
Deduct—			
Bond, per Liabilities	7000 0 0		2,000 0 0
INVESTMENTS ASSIGNED TO CREDITORS		1,500 0 0	
Valued at £1000 0 0 and deducted from Liabilities.			
		23,930 0 0	8,330 0 0
Deduct—			
PREFERABLE CLAIMS per Liabilities			210 0 0
ASSETS AVAILABLE FOR DIVISION AMONG THE ORDINARY CREDITORS			8,120 0 0
Equal to a dividend of 13s. 9d. per £ on claims of £11,800, exclusive of expenses of realisation.			
DEFICIENCY			3,680 0 0
			11,800 0 0

T. Brown & Co.

Deficiency Account.

To Loss from shrinkage in value of assets, as shown in the State of Affairs :—					By Capital—cash put into business at commencement	£5,000 0 0
Goods . . .	£350	0	0		„ Profit shown by accounts :—	
Customers' Accounts	1,750	0	0		First year	£5000 0 0
Machinery, etc. .	2,000	0	0		Second year	3000 0 0
Heritable property	3,000	0	0		Third year	2920 0 0
Investments . .	500	0	0			10,920 0 0
	£7,600	0	0		„ Deficiency, as per Statement of Affairs . .	3,680 0 0
„ Loss through liability in respect of bills discounted and accommodation bills	1,500	0	0			
„ Cash drawn by partners :—						
First year	£2000 0 0					
Second year	5000 0 0					
Third year	3500 0 0					
	10,500	0	0			
	£19,600	0	0			£19,600 0 0

The Statement of Affairs of T. Brown & Co., and the relative Deficiency Account, are worth careful study. The firm is supposed to have been in business for three years. They started with a capital of £5000. Their accounts show that their profit for the three years was £10,920, and their drawings amounted to slightly under that, namely £10,500. At the end of the three years, therefore, as shown by their books, the capital they had in the business was £5420. That this was the capital at the date of the Statement of Affairs is seen from the following statement :—

The book value of the assets was . .	£23,930
The gross liabilities, after deducting the contingent claim of £1500, was . .	18,510
Leaving as the capital . . .	£5,420

In spite, however, of having this capital, the firm had been reckless in incurring liabilities, and were unable to meet their obligations, in consequence of which they had to suspend payment, as otherwise certain of the creditors would have secured payment at the expense of the others. The Deficiency Account shows clearly how from loss on a forced realisation an apparently solvent firm may pay a very small dividend.

A Deficiency Account.

The Statement of Affairs of a bankrupt, showing the amount of his deficiency, should, where possible, be accompanied by a Deficiency Account, showing in detail the causes of the bankruptcy. Such an account should be credited with the capital at the commencement of the business or at the last ascertainable date of solvency, and the capital since put into the business, together with any profit earned. The Deficiency Account should be debited with all losses made as shown in the accounts of the debtor, together with the loss and shrinkage on assets as valued in the Statement of Affairs. The account should also be debited with the debtor's drawings. The balance of the account should be the exact amount of the deficiency, as shown by the Statement of Affairs, if the books have been correctly kept and due allowance made for all differences on valuation. A Deficiency Account when carefully prepared is of great value in determining the causes which have led to insolvency.

Example.

From the following particulars, which have been taken from the books of the insolvent debtors and other sources of information, a Statement of the Affairs as at 30th June 1899 of Ross & Todd, who are unable to meet their liabilities, and have suspended payment, has been prepared, and is submitted. There is also given a Deficiency Account explaining the deficiency:—

Particulars.

Cash on hand	£200	0	0
Customers' Accounts :—			
Good	2000	0	0
Doubtful, £300, estimated to produce	100	0	0
Bad	500	0	0
Goods valued at	1900	0	0
Heritable property, cost £3000, estimated to be worth	2500	0	0
Note.—This property is assigned to creditors for £2300.			
Shares held	150	0	0
Note.—These shares are assigned in security of a debt of £400.			
Creditors :—			
Ordinary unsecured—			
On open accounts	5000	0	0
On bills payable	1000	0	0
Partially secured by shares	400	0	0
Fully secured over heritable property	2300	0	0
Preferable claims for taxes, wages and salaries	100	0	0
Partners' drawings :—			
W. Ross	2000	0	0
R. Todd	2850	0	0

When the business was commenced on 31st December 1896, W. Ross put into it £2500 and R. Todd £2900. The first year resulted in a profit of £3000, but the next eighteen months showed a loss of £4300. No provision was made in the accounts for bad debts.

From the above particulars the student should carefully prepare a Statement of Affairs of the firm as at 30th June 1899, and should thereafter prepare a Deficiency Account. When he has got the Deficiency Account properly balanced he should compare his results with the Statement of Affairs and Deficiency Account now submitted, which differ in several points from the example already given.

ROSS & TODD

STATEMENT OF AFFAIRS as at 30th June 1899.

Liabilities.

		Expected to rank.
I. ORDINARY CREDITORS :—		
On open accounts		£5000 0 0
On bills payable		1000 0 0
		£6000 0 0
II. CREDITOR UNDER HERITABLE BOND	£2300 0 0	
Deducted from Assets, Br. IV.		
III. CREDITOR PARTLY SECURED	£400 0 0	
Deduct— Shares assigned in security per Assets, Br. V.	150 0 0	
		250 0 0
IV. PREFERABLE CLAIMS	£100 0 0	
Deducted from Assets.		
		£6250 0 0

Assets.

		Estimated to realise.
I. CASH ON HAND		£200 0 0
II. CUSTOMERS' ACCOUNTS :—		
Good	£2000 0 0	
Doubtful, £300, estimated to realise	100 0 0	
Bad, £500	0 0 0	
		2100 0 0
III. GOODS VALUED AT		1900 0 0
IV. HERITABLE PROPERTY, cost £3000, estimated to realise	£2500 0 0	
Deduct— Bondholder's debt, per Liabilities, Br. II.	2300 0 0	
		200 0 0
V. SHARES HELD	£150 0 0	
These shares are assigned in security of debt of £400, and their value is deducted from the Liabilities, Br. III.		
		£4400 0 0
Deduct— Preferable claims		100 0 0
Assets available for division among the ordinary creditors, showing a dividend of 13s. 9d. per £, exclusive of expenses		£4300 0 0
DEFICIENCY		1950 0 0
		£6250 0 0

ROSS & TODD

Deficiency Account

To Loss on business :—					By Capital put into business by partners :—		
Loss shown in accounts for eighteen months ended 30th June 1899			£4300	0 0	W. Ross	£2500	0 0
Deduct—					R. Todd	2900	0 0
Profit shown by books for year ended 31st December 1897			3000	0 0		£5400	0 0
			£1300	0 0	,, Balance, being deficiency as shown in Statement of Affairs	1950	0 0
,, Loss and shrinkage on Assets as valued in State of Affairs :—							
Heritable property	£500	0 0					
Customers' Accounts, bad	500	0 0					
Provision for doubtful debts	200	0 0					
			1200	0 0			
,, Partners' drawings :—							
W. Ross	£2000	0 0					
R. Todd	2850	0 0					
			4850	0 0			
			£7350	0 0		£7350	0 0

Exercises.

1. From the following information prepare a Statement of Affairs for the information of creditors :—

THE HERITABLE LAND SOCIETY

Unsecured creditors					£200,000	0 0
Creditors fully secured on property					6,000	0 0
Property held by secured creditors	£12,000	0	0			
Creditors for rates, taxes, and wages (preferential)					300	0 0
Bill of exchange (good)	22	0	0			
Book debts	27,000	0	0			
Good, £1000. Doubtful, £25,000 (produce £2000). Remainder bad.						
Property	56,000	0	0			
Loans on mortgage (produce £60,000)	170,000	0	0			
Office furniture	100	0	0			
Cash at bankers	900	0	0			
Cash on hand	100	0	0			

2. Wallace & Gibb, Merchants, are unable to meet their obligations. From their books and their own testimony the following particulars of their condition are ascertained :—

Cash on hand	£50	0	0
Customers' Accounts :—			
Good	1000	0	0
Doubtful, £100, but estimated to produce	60	0	0
Bad, £200			
Property (estimated to produce £2000), cost	3000	0	0
Bills receivable, good	800	0	0
Other securities (£800 pledged with partially secured creditors; remainder held by the fully secured creditors)	7000	0	0
Stock Exchange losses	3000	0	0
Trade expenses	2300	0	0
Creditors, unsecured	6000	0	0

Creditors, partially secured	£6300	0	0
Creditors, fully secured	4000	0	0
Preferential claims: wages, salaries, and taxes	150	0	0
Wallace, capital	2500	0	0
Gibb, capital	3900	0	0
Wallace, drawings	2000	0	0
Gibb, drawings	1500	0	0
Business losses	1900	0	0

Prepare a Statement of Affairs, showing the liabilities and the assets with respect to their realisation and liquidation; also a Deficiency Account, showing such of the above stated particulars as would account for the deficiency shown by the Statement of Affairs.

3. William Arnot, a Liverpool merchant, trading to the West Coast of Africa, finding himself on 1st July unable to meet his engagements, asks you to make up his Statement of Affairs for submission to his creditors.

You find from his books and other sources of information the following facts regarding his affairs:—

Unsecured creditors	£9,000	0	0
Fully secured creditors	2,300	0	0
Who hold security of the value of £3000.			
Partly secured creditors	35,000	0	0
Who hold securities of the value of £20,000.			
Preferable claims	800	0	0
Bills payable	20,000	0	0
Book debts in England (good)	1,000	0	0
Book debts (doubtful), £200, estimated to produce	75	0	0
Book debts (bad), £300, of no value.			
Stock in Liverpool, cost £1500, estimated to produce	1,200	0	0
Stock and book debts, less sundry liabilities at four stations on the coast	36,000	0	0
Of which it is estimated there will be a loss on realisation of stock of £6000, and of book debts £9000.			
Four station buildings, plant, steamers, and carrying craft, £40,000, expected to realise	20,000	0	0
Office furniture, £300, estimated to realise	200	0	0

Cash in hand	£4	0	0
Cash at bankers	80	0	0
Heritable property held by fully secured creditors	3,000	0	0
Shares held by partly secured creditors . .	20,000	0	0

Show his position, and make out his Deficiency Account from six years ago, when he had a capital of £42,000. The profits for the first three years appear by the books to have been £3000, £4000, and £5284, and the losses in the three subsequent years £1500, £2500, and £3000 respectively, after allowing £2000 a year for interest upon capital. His withdrawals have been at the rate of £4000 a year.

ACCOUNTS OF BRANCHES

The book-keeping of a business with one or more branches may be so conducted by getting daily or weekly returns from the branches as to incorporate the whole transactions of the branches in the books kept at the head office. This method, however, necessitates practically the keeping of duplicate accounts, as it is usually essential that complete accounts be kept at the branches, and treats the business of the branch more as an agency than as a branch. The more usual plan, and the method by which the full advantage of a branch establishment is secured, is to have what is practically a complete system of book-keeping at each of the branches. An account for each branch is kept in the head office books in which all the transactions between the head office and the branch are recorded, and each branch keeps a corresponding account in the branch books for the head office. These two accounts must necessarily show the same balances, but on opposite sides of the respective ledgers. At the date of the annual balance a Trial Balance is made of the books at the branch, and this, together with the stock sheets, and any other particulars required to complete the Profit and Loss Account and Balance Sheet, is forwarded to the head office. At the head office the Trial Balance and other particulars may be used to prepare a Profit and

H. BLAKE & CO.

TRIAL BALANCE as at 31st December.

	Head Office.						Branch.						Together.					
	Dr.			*Cr.*			*Dr.*			*Cr.*			*Dr.*			*Cr.*		
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
Customers	2000	0	0				600	0	0				2,600	0	0			
Creditors				800	0	0				100	0	0				900	0	0
Stock at beginning of year	600	0	0				200	0	0				800	0	0			
Purchases	4000	0	0				1500	0	0				5,500	0	0			
Sales				7000	0	0				2000	0	0				9,000	0	0
Stock at end of year :—																		
Head Office . £700																		
Branch . 300																		
£1000																		
Capital				1400	0	0										1,400	0	0
Head Office										500	0	0				500	0	0
Branch	500	0	0										500	0	0			
Expenses	2100	0	0				300	0	0				2,400	0	0			
	9200	0	0	9200	0	0	2600	0	0	2600	0	0	11,800	0	0	11,800	0	0

Loss Account and Balance Sheet of the branch alone, or the Branch Trial Balance may be incorporated with the Trial Balance of the head office and other branches. The Branch Trial Balance and Head Office Trial Balance of a business keeping its accounts in this form are shown, together with the relative Profit and Loss Accounts and Balance Sheet.

The Profit and Loss Accounts of the head office and of the branch, together with the Joint Profit and Loss Account and the Joint Balance Sheet, corresponding to the Trial Balance on the opposite page, would be as follows:—

Head Office Profit and Loss Account.

Dec. 31.	To Cost of goods	£3900	0	0	Dec. 31. By Sales	£7000	0	0
	,, Expenses	2100	0	0				
	,, Profit	1000	0	0				
		£7000	0	0		£7000	0	0

Branch Profit and Loss Account.

Dec. 31.	To Cost of goods	£1400	0	0	Dec. 31. By Sales	£2000	0	0
	,, Expenses	300	0	0				
	,, Profit	300	0	0				
		£2000	0	0		£2000	0	0

Joint Profit and Loss Account.

Dec. 31.	To Cost of goods	£5300	0	0	Dec. 31. By Sales	£9000	0	0
	,, Expenses	2400	0	0				
	,, Profit	1300	0	0				
		£9000	0	0		£9000	0	0

JOINT BALANCE SHEET as at 31st December.

Liabilities.					*Assets.*			
Creditors		£900	0	0	Customers	£2600	0	0
Capital	£1400				Goods	1000	0	0
Profit	1300							
	2700	0	0					
	£3600	0	0			£3600	0	0

The Head Office Account in the Branch Ledger, where the profit was shown in the branch books, would simply be credited with the net profit earned by the branch.

If the profit was not shown in the branch books, the accounts in these books relating to profit would be closed by being transferred to the Head Office Account, as follows :—

Head Office Account.

Jan. 1.	To Stock	£200	0	0	Dec. 31.	By Balance	£500	0	0
Dec. 31.	,, Purchases	1500	0	0		,, Sales	2000	0	0
	,, Expenses	300	0	0					
	,, Balance	500	0	0					
		£2500	0	0			£2500	0	0

It will be observed that the account is debited with the stock at the beginning of the year, because the stock would not be entered in the books of the branch if it was not desired to show the profit in these books.

DEPARTMENTS

In businesses, where it is at all possible, it is usually of great advantage to keep Departmental Accounts. A merchant who keeps such accounts is able to tell which departments of his business pay best, and which departments are not so remunerative, or may even be involving a loss. He knows, therefore, which departments of his business he should further develop, and he will endeavour to put the departments which are unremunerative upon a satisfactory footing. Thus, a tea, coffee, and spice merchant, by keeping separate accounts for each article in which he deals, ascertains the gross profit he is making on the separate articles. It is quite possible that a merchant may make a loss on a certain class of articles, but may be willing to continue to sell at an unremunerative rate in order to encourage the sale of other articles upon which his profit is satisfactory. To enable separate departments to be kept all

that is necessary is to have the Invoice Book and Day Book ruled with money columns for each separate department, and a column for the total. Where sales and purchases in the various departments are not made with the same people, separate Invoice Books and Day Books for each department may be kept, but, as a rule, the columnar method works more satisfactorily.

The Invoice Book and the Day Book of John Dent, whose transactions are given in the first exercise, are as follows:—

INVOICE BOOK

		Total.			Silk.			Cloth.			Velvet.		
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Jan. 2.	To Webster & Co. .	1300	0	0	800	0	0	500	0	0			
3.	,, Bank . . .	400	0	0							400	0	0
Dec. 3.	,, Webster & Co. .	2100	0	0	1200	0	0	900	0	0			
5.	,, do. .	2200	0	0							2200	0	0
		6000	0	0	2000	0	0	1400	0	0	2600	0	0

DAY BOOK

		Total.			Silk.			Cloth.			Velvet.		
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Jan. 5.	By T. Henry . .	1300	0	0				600	0	0	700	0	0
July 2.	,, Cash . . .	800	0	0	800	0	0						
Dec. 7.	,, T. Henry . .	4600	0	0	1500	0	0	1200	0	0	1900	0	0
	,, Cash . . .	400	0	0							400	0	0
31.	,, John Dent, Capital Account . .	45	0	0	45	0	0						
		7145	0	0	2345	0	0	1800	0	0	3000	0	0

Exercises.

1. John Dent is in business as a silk, cloth, and velvet merchant. His Balance Sheet at the beginning of the year was as follows:—

Assets.

T. Henry				£1000	0	0
Bills receivable				1500	0	0
Bank				900	0	0
Stock on hand :—						
Silk	£200	0	0			
Cloth	300	0	0			
Velvet	500	0	0			
				1000	0	0
Furniture and fittings				100	0	0
				£4500	0	0

Liabilities.

Webster & Co., Bradford	£2000	0	0
Bills payable	800	0	0
Capital	1700	0	0
	£4500	0	0

His transactions throughout the year were as follows :—

Jan. 2.	Purchased from Webster & Co.	Silk	£800	0	0
		Cloth	500	0	0
3.	Purchased for cheque	Velvet	400	0	0
5.	Sold to T. Henry	Cloth	600	0	0
		Velvet	700	0	0
7.	Received for bill receivable due to-day		1000	0	0
	Gave Webster & Co. bill payable in six months		3300	0	0
20.	Paid bill due to-day		800	0	0
July 2.	Received for bills receivable due to-day		500	0	0
	Received from T. Henry		2300	0	0
	Sold for cash	Silk	800	0	0
10.	Paid bill due to-day		3300	0	0
Dec 3.	Purchased from Webster & Co.	Silk	1200	0	0
		Cloth	900	0	0
	Accepted bill drawn by Webster & Co.		2000	0	0
	Gave them cheque		100	0	0

Dec. 5.	Purchased from Webster & Co.	Velvet	£2200	0	0
7.	Sold to T. Henry . . .	Silk	1500	0	0
		Cloth	1200	0	0
		Velvet	1900	0	0
	Sold for cash . . .	Velvet	400	0	0
	Received from T. Henry bill at three months		4000	0	0
31.	John Dent took in cash for his personal use		500	0	0
	Drew from bank for personal use		350	0	0
	Took for his personal use during year	Silk	45	0	0
	Paid wages		20	0	0
	Rent and taxes paid		150	0	0
	The stock on hand at the end of the year was as follows:—				
		Silk	400	0	0
		Cloth	300	0	0
		Velvet	708	0	0

Prepare accounts showing the profit separately on silk, cloth, and velvet. Prepare Profit and Loss Account and Balance Sheet as at end of the year, writing off 10 per cent from furniture and fittings for depreciation.

2. The following is the Balance Sheet as at 30th June of Tod & Dick, Wholesale Warehousemen, who are interested in the profits of the business in the proportion of two-thirds to Tod and one-third to Dick.

The firm took stock on 31st December following, and after making all necessary reserves and adjustments the result was as set forth in the following particulars.

Prepare the following:—

(*a*) Trial Balance.
(*b*) Departmental Trading Accounts, showing net profit of each department.
(*c*) Final Accounts and Balance Sheet.

BALANCE SHEET as at 30th June.

Liabilities.

Sundry trade creditors upon open account				£10,000	0 0
Sundry trade creditors upon bills payable				20,000	0 0
Sundry cash creditors				40,000	0 0
Interest and discount reserved				1,000	0 0
Sundry creditors for rent, rates, taxes, salaries, and wages				1,000	0 0
Capital—					
Tod	£15,000	0	0		
Dick	6,000	0	0		
				21,000	0 0
				£93,000	0 0

Assets.

Balance at bankers				£1,000	0 0
Cash in hand				100	0 0
Sundry trade debtors upon open account				40,000	0 0
Sundry trade debtors upon bills receivable in hand				2,900	0 0
Sundry debtors upon loans				1,000	0 0
Stock in trade				40,000	0 0
Fixtures, fittings, and trade utensils				1,000	0 0
Business premises				7,000	0 0
				£93,000	0 0

31st December.

Sundry trade creditors upon open account				£18,000	0 0
Sundry trade debtors upon open account				29,000	0 0
Bills payable				10,000	0 0
Bills receivable on hand				3,000	0 0
Balance at bankers				2,000	0 0
Cash on hand				100	0 0
Sundry cash creditors				28,000	0 0
Sundry debtors upon loans				1,000	0 0
Fixtures, fittings, and trade utensils				950	0 0
Business premises				6,500	0 0
Partners' drawings—					
Tod				1,000	0 0
Dick				400	0 0

DEPARTMENTAL ACCOUNT

	Departments			
	No. 1.	No. 2.	No. 3.	Total.
Stock, 30th June	£28,000	£7,000	£5,000	£40,000
Stock, 31st December	27,000	6,000	5,000	38,000
Purchases	51,000	10,000	9,000	70,000
Sales	56,000	15,950	14,000	85,950
Working expenses (including depreciation)	6,700	1,300	1,000	9,000

3. From the following particulars prepare a Cash Book and a columnar Day Book and Invoice Book. Post into Ledger, and prepare Profit and Loss Account, showing separately the profit on cinnamon, nutmegs, and mace. Use the Journal for all entries not originated in the books above given, and prepare final Balance Sheet.

Assets.

Cinnamon on hand, valued at	£1200	0	0
Nutmegs, do. do.	750	0	0
Mace do. do.	300	0	0
Cash	2000	0	0
B. Adams	125	0	0
Bills receivable	200	0	0

Liability.

W. Perkins	£800	0	0

Transactions during Year.

Sold cinnamon for cash	£200	0	0
Bought nutmegs from W. Perkins	350	0	0
Bought mace from T. Scott for	120	0	0
Paid him that sum, less discount, £3.			
Bill receivable became due, and was duly met	200	0	0
Sold parcel of goods to B. Adams—			
Cinnamon	700	0	0
Nutmegs	100	0	0
Mace	200	0	0
Drew upon B. Adams for full amount now owing	1125	0	0
Paid W. Perkins	500	0	0
And gave him a bill for	500	0	0

Sold goods for cash—			
Nutmegs	£800	0	0
Mace	200	0	0
Paid office expenses	100	0	0
The stock on hand at the close of the year was valued as follows—			
Cinnamon	480	0	0
Nutmegs	470	0	0
Mace (all sold)	0	0	0

4. From the following particulars of the business of R. Hay & Sons, Wine Merchants, prepare Departmental Accounts, showing the gross profit on whisky, brandy, and gin and wines, and Profit and Loss Account for the year.

	Whisky.	Brandy.	Gin and Wines.	Total.
Stock in hand 1st January	£700	£400	£6000	£7,100
Stock in hand 31st December	900	500	5000	6,400
Purchases	1500	1000	5800	8,300
Sales	2120	1900	9500	13,520
Duty and charges	300	200	2000	2,500

The following additional payments and allowances have been made during the year:—

Carriage	£50	0	0
Wages and salaries	300	0	0
Stationery and stamps	10	0	0
Rent	50	0	0
Rates and taxes	18	0	0
Discount allowed to customers	100	0	0
Trade discounts received	150	0	0

THE LEDGER, AND CLASSIFICATION OF LEDGER ACCOUNTS

THE LEDGER IS THE BOOK OF ACCOUNT IN WHICH BUSINESS TRANSACTIONS ARE ARRANGED, CLASSIFIED, AND RECORDED SO AS TO SHOW HOW EACH PERSON STANDS IN RELATION TO THE BUSINESS, AND THE AGGREGATE EFFECT OF THE TRANSACTIONS.

The financial statements of which a Ledger is made up are called Ledger Accounts, and are headed with a title

descriptive of their contents. In each Ledger Account the transactions are separated into debits and credits. The money column on the left is reserved for the debit entries, and the money column on the right for the credit entries. The date and particulars are usually also separated, and where they relate to debit transactions are put upon the debit side, and where they relate to credit transactions on the credit side of the account. The main feature is that the Ledger should have separate money columns for debit and credit entries. The application of the terms "debit" and "credit" as applied to accounts is very easily followed in the case of an account headed with the name of a customer who purchases goods from the business. If he receives goods on credit it is clear that his account must be debited with the price of the goods, as he is indebted to the business for them. When the customer pays his goods he must get credit for having done so. The application of the words "debtor" and "creditor" to impersonal accounts is not so easily followed.

Ledger Accounts.

Ledger Accounts may be divided into:—

1. Personal: those showing the transactions with persons, as Customers' Accounts and Creditors' Accounts.
2. Impersonal: all other accounts.

Impersonal Accounts may be divided into:—

1. Real or property: those having to do with material matter, such as stores, raw material, and cash.
2. Nominal, or accounts affecting revenue: those recording facts as to profits and losses, such as wages and rent.

The Goods Account is only a pure real account when it shows the balance of goods on hand at the close of a fiscal period. At other times it partakes of the nature of a revenue account as well as of a real account.

Personal Accounts.

Personal Accounts are accounts with persons, and show the transactions between the business and the persons with whom there are transactions which require to be recorded as personal transactions. They resolve themselves into two heads, debtors and creditors, or sales and purchases in a manufacturing or trading business. By keeping the Debtors' Accounts in one ledger, and the Creditors' Accounts in another ledger, the accounts can be more easily referred to, and one clerk may be posting purchases while another is posting sales. The Debtors' Ledger is also entitled the Sales Ledger or Sold Ledger, and the Creditors' Ledger the Purchases Ledger or Bought Ledger. These ledgers may be further subdivided where required. Thus the Sales Ledger may be divided into Home Sales Ledger and Foreign Sales Ledger; also Town Sales Ledger and Country Sales Ledger. The customers in the Town Sales Ledger may be arranged alphabetically, and the Country Sales Ledger may be arranged so that the Customers' Accounts in the different towns may come together, and the towns themselves may appear in alphabetical order.

Real or Property Accounts.

Real or Property Accounts are those which represent cash and real goods of all kinds, such as land, buildings, plant, machinery, patents, stocks, ships, shares, goods, merchandise, consignments, and assets of all descriptions except Customers' Accounts, which are personal.

Nominal Accounts.

Nominal Accounts are those which represent income or expenditure, such as wages, salaries, travelling expenses, general expenses, rents, taxes, gas, water, etc. The Real and Nominal Accounts should usually have a ledger to themselves. In such a ledger the Real Accounts should come first, and the others should follow in the order in which they appear in the Profit and Loss Account.

To balance Ledgers separately.

It is usually advisable where a merchant's transactions are numerous to keep his accounts so that his ledgers may be balanced separately, as by this means any errors in the books may be at once localised, and the difficulties of tracing them, and the time thereby wasted, very much reduced. A merchant also often wishes to know the total amount due by his customers and the amount that he is due to his creditors, and it is a considerable advantage if this can be ascertained without balancing the individual accounts and preparing a Statement of Ledger Balances in the usual way of the Customers' Ledger and the Creditors' Ledger. It is a considerable advantage if the General Ledger, which contains the accounts relating to property, profit and loss, and capital, can be balanced independently of the individual accounts of the customers and creditors. The ledgers kept in a merchant's business are usually three, as follows :—

1. The Customers' Ledger, containing the individual accounts of each customer or trade debtor.
2. The Creditors' Ledger, containing the individual account of each trade creditor.
3. The General Ledger, containing all the other accounts, being those which relate to property, profit and loss, and capital.

To enable these three ledgers to be balanced independently of one another, the books of original entry are kept so that all the items which are to be posted to the Customers' and Creditors' Accounts are arranged in money columns so that the totals of these columns can be posted to accounts kept in the General Ledger, headed "Customers' Accounts" and "Creditors' Accounts," or "Customers' Ledger" and "Creditors' Ledger." With only a Customers' Ledger, a Creditors' Ledger, and a General Ledger this would involve columns in the Cash Book for the receipts on behalf of customers and payments to creditors, any occasional payments to customers or receipts from creditors being adjusted by deductions from the respective columns in the Cash Book or by a Journal

entry. The "Customers' Accounts" and "Creditors' Accounts" in the General Ledger are practically abstracts of the Customers' and Creditors' Ledgers, and may with advantage be headed "Abstract of Customers' Ledger" and "Abstract of Creditors' Ledger." Sometimes the two accounts in the General Ledger are headed "Abstract of Customers' Accounts" and "Abstract of Creditors' Accounts." The "Customers' Account" is opened by having placed on the debit side in one slump sum the total balances due by customers at the date of opening the account. There would also be on the debit side the goods sold to customers as shown by the weekly or monthly totals of the Day Book, and on the credit side would appear the cash received from customers, goods returned, and discount allowed to customers. The General Ledger can thus be balanced independently of the Customers' and Creditors' Ledgers, and when the balances of these ledgers are ready, the statements of ledger balances would show the same balances as are shown by the Customers' and Creditors' Accounts in the General Ledger. Sometimes a customer has also an account as a creditor, and all transfers between his two accounts must be entered in the Customers' and Creditors' Accounts in the General Ledger, as well as in his individual accounts. By this method the General Ledger contains all the particulars necessary to balance the books, and immediately the books of original entry are written up, summed, and their totals posted, and the General Ledger Accounts completed, the Profit and Loss Account and Balance Sheet of the concern may be prepared. The Customers' and Creditors' Ledgers may be posted up, and the individual accounts balanced off, and statements of the balances prepared as found convenient.

One of the great advantages of the method is, that by it any mistakes in the books are at once localised, as it can be ascertained whether the mistake is in the Customers' Ledger, the Creditors' Ledger, or the General Ledger. Thus, if the Trial Balance of the General Ledger "is out," by preparing the Statement of the Customers' Ledger Balances, and comparing the total amount thereby shown to be due by customers with the balance shown by the Customers' Account,

and by comparing the total amount due to creditors as shown by the List of Creditors' Ledger Balances with the balance shown in the Creditors' Account in the General Ledger, the error may be localised into one or other of the ledgers.

If the total of the Self-Balancing Ledger does not agree with the balance shown in the abstract account in the General Ledger, of which the Trial Balance agrees, then since the error must be in the Self-Balancing Ledger, by taking a Trial Balance of the Self-Balancing Ledger, showing the totals of the two sides of each account, the sum of these totals should agree with the totals of the abstract account in the General Ledger, and so the error may be still further localised to one side of the Self-Balancing Ledger.

Again, the Customers' Ledger and the Creditors' Ledger may be further subdivided. Thus the Customers' Ledger may be divided into a ledger for Town Accounts and another for Country Accounts. In this case it would be necessary for the Sales Day Book to have two money columns, one for town items and the other for country items. Or a method which works even better in practice is to have one Sales Day Book for town customers and another Sales Day Book for country customers.

To make a ledger belonging to such a system of accounts as has been indicated absolutely self-balancing, it is only necessary to have in it an abstract similar to the one in the General Ledger, but with all the items which appear on the debit side in the General Ledger on the credit side in the abstract account in the other ledger, and the items which appear on the credit side in the General Ledger on the debit side. The method of keeping such accounts is shown in the third method of recording the transactions of William Wood given on pages 32 to 39.

To analyse the Accounts in a Ledger.

It is sometimes necessary where a set of books is being checked or investigated to prepare a complete analysis of the Ledger Accounts so as to show the sources

Analysis of the Ledger of William Wood

Fol.	Name of Account.	Dr. Balances at beginning.	Cash.	Discount.	Day Book.	Journal.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
	J. Collins .	800 0 0			500 0 0	
					1830 0 0	
	W. Simpson .				650 0 0	
	Jack & Co. .		285 0 0	15 0 0		280 0 0
			200 0 0	10 0 0		
	Scott & Tait .		770 0 0			400 0 0
	Bills payable .		400 0 0			
	Bills receivable					500 0 0
						300 0 0
	Goods . .	600 0 0				2300 0 0
	Rent . .		35 0 0			
			15 0 0			
	Wages . .		100 0 0			
			100 0 0			
	Discount . .			20 0 0		
	Capital . .	300 0 0	600 0 0			
	Add—					
	Cash Sales .				20 0 0	
	Cash Purchases		40 0 0			
	Balances :—					
	Bank . .	150 0 0	95 0 0			
	Cash . .	50 0 0	65 0 0			
		1900 0 0	2705 0 0	45 0 0	3000 0 0	3780 0 0
						3000 0 0
						6780 0 0

TAKEN BEFORE MAKING THE TRIAL BALANCE

Cr Balances at end.			Cr. Balances at beginning.			Cash.			Discount.			Invoice Book.			Journal.			Dr. Balances at end.		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
						760	0	0	40	0	0				500	0	0			
						1230	0	0							300	0	0	300	0	0
																		650	0	0
			300	0	0							490	0	0						
370	0	0										370	0	0						
230	0	0										400	0	0						
												1000	0	0						
280	0	0													400	0	0			
															280	0	0			
						495	0	0	5	0	0							300	0	0
100	0	0													3000	0	0			
																		50	0	0
																		200	0	0
																		20	0	0
700	0	0	1600	0	0															
						20	0	0												
												40	0	0						
						150	0	0										95	0	0
						50	0	0										65	0	0
1680	0	0	1900	0	0	2705	0	0	45	0	0	2300	0	0	4480	0	0	1680	0	0
															2300	0	0			
															6780	0	0			

from which the various items in these Ledger Accounts are derived. The analysis is carried out on a large sheet of paper ruled with perpendicular money columns, with a column for the folio of the book of original entry before each money column. Each account is taken, and each item of the account is entered in the analysis sheet in its appropriate column. Where the folio in the book of original entry is given this also is entered on the analysis sheet. Thus the debit columns in the analysis sheet would begin with a column for the debit balances, and the other columns would be for the items in the books of original entry, such as the Sales Day Book, the Cash Book, and the Journal, together with a column for any credit balance entered on the debit side before closing off the account. As already pointed out, the folio of the book of original entry is entered against each item. The items on the credit side of each account are treated in the same way, item by item, there being columns for the credit balances at the beginning of the account, for the different books of original entry, such as the Invoice Book, Cash Book, and Journal, and any debit balance entered on the credit side before closing off the account. Each account thus stretches across the analysis sheet, and occupies as many of the horizontal lines as there are items in the column containing the greatest number of items. The next account is entered on the first clear line on the analysis sheet. Each page of the analysis sheet is thus independent, and in fact each account can be balanced by itself, but it is usually sufficient to balance each sheet. When the totals of the columns in the analysis sheets are completed they should be reconciled with the corresponding totals of the books of original entry, and where there is any difference it can be readily traced by checking the items from the analysis sheet into the book of original entry, if the folios have been entered on the analysis sheet.

On the two preceding pages is an analysis of the Ledger of William Wood given on pages 29 to 31, and the agreement of the totals of the columns with the books of original record is at once seen. The balances at the close of the year are those given on page 66.

CHECK LEDGERS

In checking the posting of a set of books where there are numerous entries, and which have not been kept so that each ledger may be balanced separately, it is possible with very little additional trouble to prepare Check Ledgers, which enable any errors to be at once localised. In checking the posting of a set of books when that is done in the order in which the items are posted, namely from the books of original record into the ledgers, it usually falls to a junior clerk to call out the original entries, and a senior clerk checks them into the ledgers. While the senior clerk is searching for the folio upon which the entry is to be found, the junior clerk writes up the Check Ledgers, which are represented upon sheets of paper ruled with money columns. The method can be best followed by an illustration, and on the next page is given the Cash Book Check Ledger Slips of the set of books of William Wood, of which the Cash Book is given on page 34.

The Customers' Ledger is checked as follows :—

Balance due by customers at beginning of year .		£800 0 0
Total of Day Book . . .	£3000 0 0	
Deduct—		
Cash sales	20 0 0	
		2980 0 0
		£3780 0 0
Deduct—		
Credits through Cash Book		2530 0 0
Balance due by customers at close of year .		£1250 0 0

This is the balance shown by the Customers' Ledger as due by customers at the close of the year. No adjustment for cash sales and cash purchases is necessary if these are treated as belonging to the Customers' and Purchases Ledgers respectively.

Cash Book Check Ledger Figures

Cash Debtor.	
Customers' Ledger.	General Ledger.
	£150 0 0
	50 0 0
£760 0 0	
40 0 0	
	20 0 0
495 0 0	
5 0 0	
1230 0 0	
£2530 0 0	£220 0 0
	2530 0 0
	£2750 0 0

Cash Creditor.	
Purchases Ledger.	General Ledger.
	£40 0 0
£285 0 0	
15 0 0	
400 0 0	
	35 0 0
	100 0 0
	15 0 0
200 0 0	
10 0 0	
770 0 0	
	100 0 0
	600 0 0
£1680 0 0	£890 0 0
	1680 0 0
	£2570 0 0
Discount £45 0 0	
25 0 0	
	20 0 0
Balances . .	65 0 0
	95 0 0
	£2750 0 0

THE CARD OR LOOSE-LEAF SYSTEM OF KEEPING LEDGER ACCOUNTS

The Card or Loose-Leaf system of keeping Ledger Accounts, which has found considerable favour in America, works very satisfactorily in some businesses. By this method, instead of the Ledger Accounts being in bound volumes, they are kept upon loose sheets or cards in a box or case. When it is proposed to open a new account, a card or loose sheet, ruled like a Ledger Account, is taken and headed with the name of the account. When a sheet is completely filled, the account is continued on another loose sheet, and Ledger Accounts which are finished and which will not be again required are at once removed. The ledger thus consists only of accounts which are in use,

and, in preparing a Trial Balance, the trouble of going over accounts which have no balance upon them is saved. The accounts may further be arranged in any order, either alphabetically, according to the names of the accounts; or geographically, according to the towns, or according to the streets where the persons reside, or in any other way that may be found desirable. The advantages of the method are:—

1. The account of one person, or the account relating to the same kind of transaction may be extended as required to any extent by merely adding more sheets as found necessary.
2. Accounts when closed may be removed at once.
3. The accounts may be arranged in any order, and this order may be altered at any time.
4. The trouble of opening a new ledger is done away with.
5. An account or any number of accounts may be taken out and given to separate clerks to be copied without disturbing the others.

In connection with this system of keeping ledgers an efficient index to each ledger must be provided. If the sheets are arranged alphabetically, however, the index may be dispensed with. The sheets may be paged in the same way as the pages of an ordinary ledger.

The Card System applied to a Shareholders' Ledger.

The card system may be applied with advantage to the keeping of a Shareholders' Ledger or of a Debentureholders' Ledger. The work in connection with the transfer of shares once the transfers have been registered in the Transfer Register, consists mainly in the irksome routine of debiting the account of each transferor, and crediting the account of each transferee with the shares. The labour of this is much reduced by the card system, and the work practically results into simply lifting one card with the shares noted upon it from its place beside the transferor's name, to its place beside the name of the transferee. In the application of the method to a Shareholders' Ledger no change is required in the other books of the system, such as the

Allotment Book or Register of Transfers. The cards are kept in a cabinet specially prepared for their reception such as is used in libraries catalogued on the card system. The name of each shareholder is written at the top of a card, a specimen of which is shown, and the particulars of the shares are entered upon a shorter card, a specimen of which is also shown. Upon each name-card the name, designation, address, and the distinctive number of the shareholder is given. Upon each share-card are contained the particulars of each block of shares held, showing their distinctive numbers and their total amount. In the specimens given particulars have been filled in. The share-cards, upon which are contained particulars of the shares held by any individual shareholder, are placed in front of his name-card. The share-card contains a space for the date and number of each transfer. Both cards are perforated near their lower edge so that when the cards are arranged in their drawer a rod may be passed through to fix them in their places. The name-cards are arranged in alphabetical order. In posting a transfer from the Register of Transfers all that requires to be done is to take the share-card containing the particulars of the shares transferred from in front of the transferor's name-card, place the date and number of the transfer upon it, and deposit it in front of the transferee's name-card. When blocks of shares are split, or a share-card is completely filled up, new share-cards are used, and the old ones are cancelled.

To prepare a list of shareholders at any time all that requires to be done is to copy out the names and holdings from the cards. No index is required, as the names are arranged alphabetically.

When circulars are being addressed to the shareholders any number of clerks may be employed, and the work completed in as short a time as desired. The system is so simple that with ordinary care no error need ever be made, but should a mistake occur it can be readily traced by means of the references on the share-cards.

The following are specimens of the cards referred to :—

Cards for Shareholders' Ledger

No.....

Name.....

Designation.....

Address.....

From 56421

Shares

To 56520

Amount 100

Date.	Transfer No.	Date.	Transfer No.	Date.	Transfer No.

RESERVES AND RESERVE FUNDS

A RESERVE IS AN AMOUNT SET ASIDE OUT OF PROFITS, OR OTHER CREDIT BALANCE NOT REPRESENTING A LIABILITY TO OUTSIDE CREDITORS, BY DEBITING THE PROFIT AND LOSS OR OTHER ACCOUNT AND CREDITING THE RESERVE OR RESERVE FUND ACCOUNT.

A reserve is formed out of profit where it is thought for any reason to be undesirable to pay away the full amount of the profit shown in the Profit and Loss Account. The profits must have been such as might have been distributed in the form of dividends, but are retained with the view of the capital being strengthened and augmented. The reserve should therefore be formed by debiting the Profit Appropriation Account and crediting the sum to the Reserve Fund Account. A reserve may be available for equalising dividends or for meeting extraordinary losses. When a reserve is provided for any distinct object or contingency it should be specially designated so as to ear-mark the fund. As, for example, Reserve for Equalising Dividends, Reserve for Bad Debts, Reserve for Depreciation, Reserve for loss on Investments, etc. With reference to such reserves, it must be noted that a reserve for bad debts or for depreciation is not a reserve so far as bad debts have been incurred or depreciation has actually taken place, but are only reserves so far as the amount reserved is in excess of current requirements. Reserves for Bad Debts and Depreciation are better termed Allowances for Bad Debts and Depreciation when they refer to present requirements. Similarly with Reserve against loss on Investments. A reserve to be such must form part of the surplus of assets correctly valued over all liabilities to outside creditors, capital, and unappropriated profits. In a new company, for example, there can be no Reserve Fund until all such assets as Preliminary Expenses have been wiped out. Again, there can be no Reserve

Fund until any debit balance on the Profit and Loss Account is wiped out.

Sometimes when shares or debentures are issued at a premium the total premiums received, after deducting the expenses of the issue, are credited to a Reserve Fund, which is used generally to strengthen the financial position of the company. Various terms are applied to a reserve, such as Reserve Fund, Reserve Account, Surplus, Margin, and Rest.

Investment Fund.

When a Reserve Fund in place of being merely such as we have defined it has a corresponding amount of cash used to purchase securities which are held as available for the purposes of the reserve, the Reserve Fund is sometimes designated as an Investment Fund. It is perhaps, however, preferable to still call the fund the Reserve Fund, and to place the investment connected with it under the head "Reserve Fund Investments" on the assets side of the Balance Sheet. A reserve is as truly a reserve whether a corresponding sum is invested outside the business or remains in the business. In fact, the sum so invested may remain intact, but the reserve may disappear through the depreciation of the assets of a concern or through direct losses.

Secret Reserves.

Certain large financial concerns, such as banks and insurance offices, have sometimes very large secret reserves. These are formed by writing down, for example, the figure at which the buildings stand in the accounts to a nominal sum, by maintaining investments at cost which have permanently appreciated in value, and by the omission altogether of assets from the Balance Sheet which might fairly be included. The practice is not to be commended, as it is quite as incorrect, although less harmful in its results, to understate a company's position as to overstate it. Some companies thus practically defraud one race of shareholders for the benefit of their posterity.

Redemption Fund.

A REDEMPTION FUND IS SIMILAR TO A RESERVE FUND IN THAT IT IS SET ASIDE OUT OF PROFITS, USUALLY BY EQUAL YEARLY INSTALMENTS, SO THAT WHEN A FUNDED DEBT OR OTHER OBLIGATION MATURES THE REDEMPTION FUND WILL EQUAL THE AMOUNT OF THE OBLIGATION, AND THERE WILL BE AN ACCUMULATED SURPLUS OF ASSETS OUT OF WHICH TO REDEEM IT. Had the profits been divided there would have been no cash or other available assets out of which to meet the obligation. The creation of such a fund results in profits being withheld from division by way of dividend, and thus makes possible the redemption of the debt out of the resulting accumulation of assets. When the obligation is paid off, the Redemption Fund still remains, and must then either be treated as an ordinary Reserve Fund or carried back to the Profit and Loss Account.

Debenture Reserve Fund.

It is sometimes provided in the Articles of Association of a company that an annual sum is to be set aside out of profits to pay off its debentures at the end of a certain time. The result of such a provision is to form a Redemption Fund, which may be called the "Debenture Reserve Fund," which at the date when the debentures mature should have at its credit a sum equal to the amount of the debentures. The directors should, of course, have watched to see that they had sufficient cash to meet the debentures, and when these are paid the Debenture Account would be debited with the amount, and the directors thus find themselves with a credit balance equal to the amount of the debentures paid off on the Debenture Reserve Account. The balance of the Debenture Reserve Fund Account may, therefore, after the debentures have been paid off, either be re-transferred to the Profit and Loss Account, where it will be available for appropriation to other purposes, such as an ordinary Reserve Fund.

SINKING FUNDS

A SINKING FUND IS A FUND SET ASIDE OUT OF ASSETS AND ACCUMULATED AT INTEREST FOR THE PURPOSE OF MEETING A DEBT.

Thus the fund set aside annually by a government, and invested, along with the interest on the annual instalments, with the view of redeeming at some future date the liabilities of the government to its stockholders, is a Sinking Fund properly so called. The main distinction between a Sinking Fund and a Reserve Fund or Depreciation Fund is that a Sinking Fund is formed of specific assets set aside and ear-marked to be used in the payment of some liability, whereas a Reserve Fund is set aside out of profits to be used should occasion require to write down some asset, and is frequently represented by the ordinary trade assets. The Sinking Fund is a debit balance in the ledger and an asset. The Reserve Fund is a credit balance and a liability. A Sinking Fund is sometimes formed by companies to redeem such liabilities as debentures and mortgages.

Contingent Fund.

A CONTINGENT FUND, LIKE A SINKING FUND, IS SET ASIDE OUT OF CASH OR OTHER ASSETS, USUALLY OF THE NATURE OF OCCASIONAL OR EXTRAORDINARY RECEIPTS NOT RECEIVED FOR ANY PARTICULAR PURPOSE. The fund is used for payments for which there are no other available funds. The expression "Contingent Fund" should never be used for a Reserve Fund, but the name should be kept strictly for such an asset as has been defined. The Contingent Fund is an asset, whereas the Reserve Fund appears among the liabilities. In a friendly society fines paid by the members in respect of non-attendance at meetings or non-acceptance of office are sometimes accumulated in such a fund apart from the regular accounts of the society alto-

gether, and the fund is useful when any contingency arises requiring the disbursement of money which cannot be paid out of any of the other funds.

Debenture Bond Sinking Fund.

An everyday instance of a Sinking Fund is found in the case of a debenture bond purchased at a premium, and redeemable at par at the end of a fixed number of years. Under such circumstances the interest received cannot all be treated as income; part of it must be applied year by year to wipe off the premium so that immediately before maturity the Investment Account may stand debited with the par value only of the bond. The annual income is termed the nominal interest; the balance after provision has been made for writing off the premium is the true interest, or, as it is technically termed, the *yield* of the investment. Thus, suppose £104 is paid for a £100 debenture bond, redeemable at the end of 10 years, and bearing interest meanwhile at 5 per cent per annum. Here 5 per cent is the nominal interest, or the interest on the *par value of the bond*, but the interest on the *actual capital invested*, in other words, the *yield of the investment*, is only $4\frac{1}{2}$ per cent, the difference representing capital repaid which should be re-invested. In the case of curatories and judicial factories under the Court it is usually necessary to set aside each year a portion of the income from all bonds and stocks purchased at a premium and redeemable within a given number of years. Thus Colonial Government stocks when redeemable and purchased at a premium must be reduced from what they cost to their redeemable value by having so much written off the figure at which they are valued each year, so that when they are redeemed the cash received will be the same as the value put upon them in the accounts.

The Ledger Account for such an investment as that given above would be as follows:—

£100 FIVE PER CENT DEBENTURE BOND

Redeemable 1st January 1910 at par.—Yield of Investment, 4½ per cent.

Dr.					*Cr.*			
1900.					1900.			
Jan. 1.	To Cash . .	£104	0	0	Dec. 31.	By Cash (nominal interest received) . .	£5	0 0
Dec. 31.	,, Interest (4½ per cent on £104) .	4	13	7		,, Balance .	103	13 7
		£108	13	7			£108	13 7
1901.					1901.			
Jan. 1.	To Balance . .	£103	13	7	Dec. 31.	By Cash . .	£5	0 0
Dec. 31.	,, Interest (4½ per cent on £103:13s. 7d.)	4	13	4		,, Balance . .	103	6 11
		£108	6	11			£108	6 11
1902.					1902.			
Jan. 1.	To Balance . .	£103	6	11	Dec. 31.	By Cash . .	£5	0 0
Dec. 31.	,, Interest (4½ per cent on £103 : 6s. 11d.)	4	13	0		,, Balance . .	102	19 11
		£107	19	11			£107	19 11

and so on each year.

Here it will be seen that in the first year 6s. 5d. of the premium is wiped off; in the second year 6s. 8d.; in the third year 7s., and if the account be continued to its close it will be found that the sum of all these "repayments of capital" is £4, and that the debit will be reduced to £100 by the time the bond will have reached maturity and be paid off at its par value.

The student will ask how he is to ascertain that such an investment yields him 4½ per cent, or, conversely, such a debenture bond being offered him, how he is to ascertain the price that will yield him 4½ per cent, or any other desired return, on his investment. These questions form a chapter in the Theory of Annuities-Certain, which hardly falls within the scope of this work. The problem is, how-

ever, capable of a simple solution by means of interest and annuity tables. Thus, suppose I am offered a bond such as has been described, and I wish to ascertain what annual return the investment will yield. I have to pay £104, and for this I am to receive (1) an annuity of £5 for 10 years, and (2) repayment at par, namely £100, at the end of 10 years. Now the rate of interest I wish to ascertain is that rate at which the present values of the interest and the capital added together will amount to £104. I take my tables and first try, say, $4\frac{3}{4}$ per cent.

Present value at $4\frac{3}{4}$ per cent of an annuity of £5 for 10 years .	£5 × 7·816 = £39·080
Present value at $4\frac{3}{4}$ per cent of £100 receivable at end of 10 years	£100 × ·62872 = 62·872
	£101·952

The value of the annuity (7·816 per unit) and the capital (·62872 per unit) have been taken too low, that is, at too *high* a rate of interest; in other words, the price asked, 104, would not enable me to realise $4\frac{3}{4}$ per cent. Try $4\frac{1}{4}$ per cent.

Present value at $4\frac{1}{4}$ per cent of an annuity of £5 for 10 years .	£5 × 8·011 = £40·055
Present value at $4\frac{1}{4}$ per cent of £100 receivable at end of 10 years	£100 × ·65954 = 65·954
	£106·009

Here, on the other hand, the rate of interest tried is evidently too *low*. If I wanted to realise only $4\frac{1}{4}$ per cent I could afford to pay £106.

Try now an intermediate rate, say $4\frac{1}{2}$ per cent.

Present value at $4\frac{1}{2}$ per cent of an annuity of £5 for 10 years .	£5 × 7·913 = £39·565
Present value at $4\frac{1}{2}$ per cent of £100 receivable at end of 10 years	£100 × ·64393 = 64·393
	£103·958

I have thus, as near as possible, hit upon the correct rate, and have found that if I pay £104 (more accurately £103 : 19s. 2d.), for the bond in question, the return on my investment will be $4\frac{1}{2}$ per cent.

The converse problem of finding what price I should pay in order to realise a stipulated return on my outlay is, of course, solved in the same manner, but without the necessity of successive trials. I simply value the £5 per annum and the £100 payable 10 years hence at the stipulated rate of interest, and the sum of their values is the price I should pay. Thus if I want to realise $4\frac{1}{4}$ per cent I shall pay £106·009; if $4\frac{1}{2}$ per cent, £103·958; if $4\frac{3}{4}$ per cent, £101·952.

The bond dealt with above bears interest at a nominal rate *per annum*. In practice, interest is usually payable half-yearly. But all that has been said applies if we substitute in the above example the words "20 periods" for "10 years," treat the bond as bearing $2\frac{1}{2}$ per cent per *period* for 20 periods, and select the annuity and present values accordingly. The resulting yield will be the yield per *period*.

The bond may be purchased, not at a *premium*, but at a *discount*. But the same principles hold good. The true yield in such a case will be higher than the nominal rate of interest, and will be ascertained as above; the debit entries in the Loan Account will exceed the credits, and thus the loan will be gradually *written up* to the par value of the bond.

These brief explanations will, it is hoped, enable any one to calculate for himself the yield on a simple debenture bond. But those who deal frequently with such investments have no need to be their own computers. Various sets of tables, such as those of Nash, have been published, from which the information required can be obtained at a glance.

In what has preceded it is assumed (1) that the payments of nominal interest will be regular and uniform, and (2) that the first payment of interest falls due a full year (or period) after the date of purchase, in other words, that

the bond is acquired immediately after a payment of interest has been made. This latter condition does not usually hold in practice. Bonds are bought and sold daily, and the purchaser usually acquires with them the next due interest coupons, no matter how soon they may be payable. In such cases the actual price paid must be discounted for the fractional period elapsed before it is made the basis for calculating the yield. The discounting is usually effected by simply knocking off the amount of *nominal interest* already accrued. Thus, suppose I buy on 1st July, at £106½, a bond for £100, 5 per cent interest, the first interest coupon of which is payable on the 1st January following. £2:10s. of interest has thus accrued, and is presumably included in the price. Deducting it, we have £104, the price as at 1st January *preceding*, and this will form the basis for ascertaining the yield. The Ledger Account will of course be debited with £106½ actually paid on 1st July. Then, on the 1st January following, the first instalment of interest, £5, will fall to be credited. The corresponding debit, however, is only for half a year in respect of the price paid, and should be arrived at as follows. The yield will be 4½ per cent, as shown above, if the bond be a 10 years one. The *discounted price* on which the yield was estimated is £104. A full year's interest on this at 4½ per cent is £4 : 13s. 7d.; deduct £2 : 10s. included in the actual price, debit the balance, £2 : 3s. 7d., and the account will then be in the same position as if the purchase had been made a *full year* previously at £104, as shown in the example already given.

In the case of a bond payable in a foreign currency, the element of exchange may enter and complicate matters a little. As an example take an American railway bond for, say, $500, with coupons attached for $25 each, *i.e.* 5 per cent. On the London Stock Exchange the value of the dollar is usually taken at 4s. Thus, if the price were 104, a purchaser would have to pay £500 × 1·04 divided by 5, or £104. But in all probability he will receive more than 4s. per dollar, both on his interest coupons and on the bond at its maturity; in fact, 4s. 1d. per dollar may safely be anticipated as a minimum. At this rate £104 is

equal to \$509·4, being a premium of only 1·88 per cent on the \$500 bond. Thus, by paying at the rate of 4s. per dollar, and receiving interest and capital at the rate of 4s. 1d., the nominal premium is reduced by 2·12 per cent, and the yield will be increased accordingly.

One other point may be referred to. It is not necessary to burden the Ledger Account with both debit and credit entries in respect of interest. From the example already given in detail of the £100 five per cent debenture bond, it will be seen that the capital is written down by 6s. 5d. the first year; 6s. 8d. the second year; 7s. the third year, and so on. These instalments of Sinking Fund are all that need appear in the Ledger Account. The whole interest as received would go to the credit of the Interest Account, and the instalments of Sinking Fund would be journalised as follows:—

1900. Dec. 31.	Interest	*Dr.*	£0	6	5		
	To £100 five per cent debenture bond .					£0	6	5
1901 Dec. 31.	Interest	*Dr.*	0	6	8		
	To £100 five per cent debenture bond .					0	6	8
1902. Dec. 31.	Interest	*Dr.*	0	7	0		
	To £100 five per cent debenture bond .					0	7	0

and so on each year.

This method has one advantage in the case of loans affected by a foreign exchange—any profit or loss arising from incidental variations of exchange is at once carried to the Interest Account, and is not suffered to affect the Loan Account. The first instalment of Sinking Fund having been ascertained, the succeeding instalments are easily calculated, for they form a geometrical series with the ratio $1+\frac{K}{100}$, where K is the yield per cent. Thus, in the above example 6s. 8d. = 6s. 5d. *plus* $4\frac{1}{2}$ per cent; 7s. = 6s. 8d. *plus* $4\frac{1}{2}$ per cent, and so on.

COLLIERY SINKING OR REDEMPTION FUNDS

Provision is, as a rule, made in the Articles of Association of a colliery company for the time when the coal will become exhausted, or for the expiry of the lease, when the fixed plant and workings which have been put down and opened up at considerable cost will be of very little value. The precise value of the fixed plant and other capital outlay of a colliery at any particular time is a question more for a mining expert than for an accountant, and very often in such questions it is of great advantage for an accountant and a mining expert to have a conference, so that they may advise the colliery company what is the best course to pursue in the special circumstances of each case. The mining expert can tell how long the coal will last, and the accountant can tell what sum it will be necessary to set aside each year in order to replace the Capital of the company. It is very desirable to have some scientific basis upon which to calculate the Redemption Fund, so that when the colliery is completely worked out or the lease has expired the capital of the shareholders may be used for the purpose of leasing another coal-field, or may be returned to the shareholders. When the specific gravity of the coal is known, together with the average thickness of the various seams, and the total area included in the lease, the quantity of coal in the coal-field may be calculated with considerable accuracy. The total quantity of coal and the probable annual output being known, the date of exhaustion when the Sinking Fund will be required to replace the capital may be ascertained. There are various ways in which the Sinking Fund to provide for the capital to be repaid to the shareholders, or to be used in the leasing of another field, may be formed. Thus, the same sum may be set aside each year and invested outside the business of the colliery in some security so that these instalments, with the interest that has accumulated, will amount to the sum required. Again, sums of the same amount may be debited to the

Profit and Loss Account and credited to a Reserve Account in the books of the colliery, and interest at the required rate may also be credited each year, but no separate investment may be made. Again, an equal annual sum may be set aside each year of such an amount as without interest will amount to the sum required. The annual output of a colliery varies very much one year with another, and an equal annual sum is of course felt most in poor years. A preferable method is to make the payments to the Sinking Fund depend on the profits for the year, and this is done by setting aside a fixed rate per ton of coal raised or sold. This method works very satisfactorily on the whole, and by it each ton of coal bears its equal share of the expenses of pit sinking and making the colliery. Thus, if £50,000 is expended upon sinking shafts and general colliery formation expenses, and the total quantity of coal in the field is estimated at twenty-four millions of tons, a rate of $\frac{1}{2}$d. per ton will provide the necessary Sinking Fund by the time the coal is worked up. This method, although it errs on the safe side, leaves out of account the question of interest, and assumes that the money will simply remain in the colliery. If the Sinking Fund is invested outside the business, or if the fund, although left in the business, is credited with interest each year, the amount per ton required to be set aside will only be about one-half. Assuming that in the above case the coal would be exhausted in fifty years, and that the annual output would be 480,000 tons per annum, the annual sum required to be set aside and invested at 3 per cent to provide £50,000 in fifty years is £443 : 5s. 6d. This sum, divided by the annual output, gives less than $\frac{1}{4}$d. per ton as the amount required to be set aside in respect of each ton of coal raised. Of course it is evident that if more coal is raised each year so that the coal becomes exhausted in less than fifty years the Sinking Fund will not be sufficient; on the other hand, if less coal is raised, and the colliery lasts beyond the fifty years, the Sinking Fund will be more than sufficient in consequence of the operation of interest. Almost all colliery Sinking Funds require to be carefully revised and adjusted every few years. The

simplest method of all, and one which requires no adjusting, is to set aside the same sum each year. Thus, suppose a pit cost £19,000 to sink, and that the lease is for thirty years, at the end of which time the break-up value of the machinery will be £1000. It is evident that £18,000 must be written off during the thirty years. The simplest way to accomplish this is to charge £600 per annum. This method has the advantage of simplicity, and when the amount of depreciation is fixed there is no temptation to adjust it each year so as to enable a dividend to be paid.

REALISATION AND LIQUIDATION ACCOUNTS

A REALISATION AND LIQUIDATION ACCOUNT IS AN ACCOUNT SHOWING THE RESULT OF THE LIQUIDATION OF A BUSINESS OR ESTATE.

It is debited with the total assets as shown in the Balance Sheet or Statement of Affairs of the concern as at the date of the commencement of the liquidation, and is credited with the liabilities to outside creditors. It is thereafter credited with the assets as realised and charged with the liabilities as they are liquidated, together with the expenses of realisation and the cost of liquidation.

Realisation and Liquidation Accounts are sometimes prepared in the form of Accounts Charge and Discharge. The liquidator charges himself with the whole estate as at the date of liquidation. The Charge also contains in an inner column the estate actually realised. Any surplus on realisation is added, and any deficiency or loss on realisation is deducted from the Charge. On the Discharge side of the account appear the payments made to creditors, the expenses of realisation, the cost of the liquidation, and any return of share capital made to the shareholders.

CONSIGNMENT ACCOUNTS

A CONSIGNMENT ACCOUNT IS AN ACCOUNT KEPT BY A MERCHANT, CALLED THE CONSIGNEE, WHO RECEIVES GOODS CONSIGNED TO HIM FOR SALE, AND SHOWS ON THE DEBIT SIDE THE EXPENSES AND COMMISSION CHARGED IN CONNECTION WITH GOODS RECEIVED FROM ANOTHER MERCHANT, CALLED THE CONSIGNER, AND ON THE CREDIT SIDE THE AMOUNT REALISED FOR THE GOODS.

The goods are sent at the risk of the consigner, and remain his property till sold. The corresponding account in the books of the consigner is headed merely "Consignment Account" or "Consignment Outwards Account." The statement which the consignee renders to the consigner when the transaction is completed is called an "Account Sales," and enables the consigner to write up his Ledger Account. The balance is remitted by the consignee either by cash or bill, or transferred to the current account of the consigner.

JOINT ACCOUNTS

A JOINT ACCOUNT, OR JOINT ADVENTURE ACCOUNT, AS IT IS SOMETIMES CALLED, RECORDS THE COMMERCIAL TRANSACTIONS OF A PARTICULAR KIND, USUALLY OF A TEMPORARY NATURE, ENTERED INTO JOINTLY BY SEVERAL PARTIES WHO COMBINE TOGETHER FOR THE PURPOSE, AND CONTRIBUTE THE CAPITAL AND THE SERVICES, AS MAY BE ARRANGED, AND AGREE TO SHARE THE LOSSES OR PROFITS IN CERTAIN PROPORTIONS.

One of the parties may act as manager, although they may all have a share in the management, and when the speculation or venture is completed the manager combines all the transactions in the Joint Account, ascertains the balance due to or by each of the parties, and settles with

his co-venturers. The debit side of the Joint Account contains all the outlay, and the credit side all the receipts or income.

Exercises.

1. Brown imports goods on joint account on equal terms with Smith; the goods cost £1000, which was paid by Brown; the freight and insurance cost £65, which Smith paid. The goods realise £1170, which is received by Smith. Draw up an account, showing the profit on the venture and the amount payable by Smith to Brown.

2. R. Allan and T. Dick agreed to import into this country from Australia a quantity of timber. On 1st March they opened a banking account in their joint names, to the credit of which R. Allan paid £700 and T. Dick £500. They agreed to divide profits or losses in proportion to these amounts. From this account £900 was remitted to Australia for cost of timber, £50 for agent's charges, and £200 was paid for freight and other charges. On 1st December they had realised by various sales £1200, which had been paid to the Bank Account, and each partner had been paid thereout the amount he had advanced. They agreed to close the adventure, Allan taking over the unsold timber at the price of £200. Make out the accounts, and show how the transaction would be closed.

REVENUE ACCOUNT

The Profit and Loss Account is often called the Revenue Account, but it is perhaps better to keep the expression "Revenue Account" as the generic term embracing all accounts dealing with income, earnings, or profit, against which appear the cost, expenses, and losses connected therewith. In a concern not conducted for profit the revenue transactions are embraced in an account called the Revenue Account or the Income and Expenditure Account.

STATEMENT OF RECEIPTS AND PAYMENTS

A Statement of Receipts and Payments is a summarised Cash Account, showing on the debit or receipts side, properly analysed under appropriate headings, the total money received during the period embraced by the account. The credit or payment side shows the cash disbursed during the period to which the account relates. These receipts and payments may be earnings and expenses relating to other periods than that covered by the account, the only requisite being that the cash was actually received or actually paid during the period embraced by the account. The statement shows the balance of cash on hand at the beginning of the period and the balance of cash on hand at the close of the period.

INCOME AND EXPENDITURE ACCOUNT

An Income and Expenditure Account, or Revenue Account, as it is sometimes called, should have on the credit side the whole income of the society or concern to which the account relates for the period embraced in the account. Part of this income may have been received and part may still be due, but whether received or due, so long as it is the income relating to the period, and it is considered that it will be received, it must be brought into the account. Similarly, the whole expenses properly chargeable during the period or against the income, whether these expenses have been paid or are still due, must be included on the debit or expenditure side. The income outstanding at the close of the account forms an asset and the expenditure still due a liability of the concern, and should appear in the Balance Sheet of the concern at the close of the period. The Income and Expenditure Account is prepared from, and must reconcile with, the cash received and paid during the period, together with the assets and liabilities of the concern at the beginning and end of the period. The balance of the Income and Expenditure Account is the surplus, or excess of income over expenditure, if the income side is the

greater, or the deficiency of the concern, or the excess of expenditure over the income, if the expenditure side is the greater. This surplus or deficiency will be that for the period embraced in the accounts, unless there is a balance carried over from the previous year. It is always advisable, however, to indicate the exact surplus or deficiency attributable to the period embraced in the account.

SUSPENSE ACCOUNTS

A SUSPENSE ACCOUNT IS AN ACCOUNT OPENED FOR THE PURPOSE OF HAVING POSTED TO IT ITEMS WHICH THE BOOK-KEEPER IS UNABLE FOR THE TIME TO DETERMINE THE PROPER DESTINATION OF.

This may arise through a dispute as to the intention of parties, and upon settlement the item is transferred to its proper account. Sometimes cash is received in the form of a bank order or post office order, and through the omission of the ender the cashier has no clue to the object of the payment. In such a case the Suspense Account is the correct place to post the receipt to pending inquiries. A Suspense Account should never be used for any other purpose.

GOODWILL

GOODWILL IS THE MONETARY VALUE PLACED UPON THE CONNECTION AND REPUTATION OF A MERCANTILE OR MANUFACTURING CONCERN, AND DISCOUNTS THE VALUE OF THE TURNOVER OF A BUSINESS IN CONSEQUENCE OF THE PROBABILITIES OF THE OLD CUSTOMERS CONTINUING.

It is the value of the connection and reputation which a business has acquired during its existence, and these warrant the expectation that the turnover will continue so long as the business is conducted by the same parties, under the same

name, upon the same principles, or in the same premises. Lord Eldon's definition was: "The goodwill of a trade is nothing more than the probability that old customers will resort to the old place." Goodwill is seldom met with in the accounts of private concerns, but it is almost always to be found in the Balance Sheets of limited li bility companies which have been formed out of existing businesses sold at a price in excess of the value of the tangible assets.

How Valued.

The value of the goodwill of a business depends upon :—

1. The place.
2. The name.
3. On the chance of no one stepping in connected with the old firm to compete.

A purchaser of the goodwill of a business requires to consider and weigh all these points carefully. He should further consider how far the business is really personal to the seller, and so not transferable. The business of a contractor, for example, is largely personal, and cannot as a rule be transferred.

The question of the value of the goodwill of a business may arise :—

1. Upon the dissolution of a firm, which may arise from :—
   (1) The death of a partner.
   (2) The voluntary retirement of one of the partners.
   (3) The bankruptcy of one of the partners.
2. Upon the sale of a concern :—
   (1) To a new proprietor.
   (2) On the conversion of the old concern into a limited liability company.
   (3) Upon a new partner being assumed.

It is usual when a partner dies for his co-partners to take possession of the whole of the goodwill, including the deceased's share. They should pay heavier for it than if the deceased partner were still living and had voluntarily retired, because he might have competed with them in business after receiving his share of the goodwill.

The bankruptcy of one of the partners of a business has, as a rule, an adverse influence upon the goodwill, but may still leave the goodwill as an asset of considerable amount. All depends upon the special circumstances of the business.

It is the custom to base the value of the goodwill of a business on a certain number of years' or months' purchase of the average net profits for, say, the three or five years immediately previous to the date of valuation. In the liquor trade the value of goodwill is sometimes based upon the quantity of liquor consumed in the year. The turnover of spirits can always be determined accurately from the Government Permit Book, and in such a business the ratio of profit to turnover should not vary much. Sometimes the interest on the capital employed and an allowance for personal management is deducted from the profit before arriving at the net profit upon which a certain number of years' purchase is to be taken as the goodwill. If a business requiring a capital of £3000, upon which the interest at 5 per cent would be £150, and yielding a profit of £1000 per annum, was worth $(£1000 - £150) \times 3$, or $£850 \times 3 = £2550$; another similar business yielding the same profit, and requiring only £2000 of capital, would be worth, it is evident, $(£1000 - £100) \times 3$, or $£900 \times 3 = £2700$. Similarly, a business requiring a man's undivided attention is not worth so much as another business yielding the same profit and employing the same capital, but requiring only half the attention of one man. For purposes of comparison, therefore, at all events a value must be placed not only upon the capital to be employed, but upon the services requiring to be rendered. It is only upon the surplus profits after charging all the expenditure in earning the profit that goodwill should be calculated, and the reliability of each source of profit should be considered, the number of years' purchase of the profit from the department or source showing the steadiest ratio being greater than that of the more precarious profits from the other departments or sources of revenue. The amount given in practice for goodwill is as follows:—

Wholesale or retail trading businesses, 1 to 4 years' purchase of the profits.

Manufacturing concerns, 1 to 3 years' purchase of the profits.
Professional concerns, 1 to 2 years' purchase of the profits.

In the case of a compulsory purchase, say by a railway company or corporation, under powers of an Act of Parliament, 10 to 25 per cent would require to be added to the sum arrived at on the above basis to come to a reasonable sum for such disturbance.

It was formerly the practice to give the seller of a business a certain proportion of the profits made during succeeding years in respect of goodwill. From a buyer's point of view this was a very satisfactory method, as it made the amount payable depend upon results; but from the seller's point of view the method proved unsatisfactory, as the buyer did not exert himself so much as he would have done had all the profits belonged to himself.

DEPRECIATION

Depreciation is the diminution in the value of an asset, and may be due to various causes. Thus in the case of machinery, it may be due to wear and tear or to the machinery becoming obsolete. In the case of heritable property, it may be due to objectionable works being started in the locality, or to economic causes. The subject is a very wide one, because different classes of assets depreciate at different rates. When capital is spent in the purchase of machinery, plant, land, or buildings with the view of a profit being earned, provision must be made for the replacement of the capital before the return from the expenditure can be regarded as income. Depreciation is thus a charge upon revenue. The object of writing off depreciation from the sums at which assets appear in one Balance Sheet is to make allowance for any diminished value, so that these assets may appear in each Balance Sheet at their true value.

In determining the rate of depreciation the main facts to be kept in view in reference to any particular subject are :—

1. The original cost.
2. The annual repairs required.
3. The probable life.
4. The market value.
5. The break-up or residual value.

In allowing depreciation the rate may be calculated upon the original value or upon the diminished value from which the depreciation of previous years has already been written off. Where the depreciation is on the original cost a much lighter rate is sufficient than where the depreciation is calculated on the diminished value. The more usual way is to calculate depreciation on the diminishing values. The effect of so calculating depreciation is that in later years the allowance for depreciation is lighter, but this is counterbalanced by the repairs being as a rule heavier in these years. Thus, if the life of a machine be taken as twelve years, and it is considered that the residual value of the machine at the end of twelve years will be 10 per cent of the original cost, then depreciation at the rate of $7\frac{1}{2}$ per cent on the original cost will require to be written off each year. To arrive at the same result if the percentage is written off the decreasing value each year, it will be necessary to write off depreciation at the rate of 17·46 per cent per annum from the decreasing value.

TO FIND THE RATE OF DEPRECIATION TO BE WRITTEN OFF THE DECREASING VALUE OF AN ASSET EACH YEAR SO THAT WHEN THE ASSET HAS TO BE REALISED THE VALUE OF THE ASSET AS APPEARING IN THE BOOKS MAY BE THE SAME AS THE RESIDUAL VALUE WHICH THE ASSET WILL REALISE.

Let V represent the present value of the asset;
R the residual value after n years;
n the number of years at the end of which the asset will be required to be sold, when it will only be worth R;
d the depreciation per unit per annum.

It is evident if d is the depreciation per unit per annum that the value of the asset at the end of the first year will be $V - Vd = V(1 - d)$. This value of the asset at the end of the first year will depreciate during the

second year at the same rate as the value of the asset during the first year. Hence the value of the asset at the end of the second year will be $V(1-d)(1-d) = V(1-d)^2$, and so on at the end of each year. Hence at the end of n years the value of the asset will be $V(1-d)^n$, but this sum is R, hence we have the equation :—

$$V(1-d)^n = R;$$

$$\therefore (1-d)^n = \left(\frac{R}{V}\right),$$

$$\therefore 1-d = \left(\frac{R}{V}\right)^{\frac{1}{n}};$$

$$\therefore d = 1 - \left(\frac{R}{V}\right)^{\frac{1}{n}}.$$

The rate of depreciation per cent is $100 \times d$, or

$$100\left\{1 - \left(\frac{R}{V}\right)^{\frac{1}{n}}\right\}.$$

Take the following example :—

Suppose that £1000 is the value at the beginning of a certain period of an asset, and that five years afterwards the value will be £400. It is required to find the percentage of depreciation to be written off each year from the decreasing value to leave £400 five years hence. To find

$$1 - \left(\frac{R}{V}\right)^{\frac{1}{n}}.$$

Here

$$V = 1000.$$
$$R = 400.$$
$$n = 5.$$

Hence we have

$$\log\left(\frac{R}{V}\right)^{\frac{1}{n}} = \log\left(\frac{400}{1000}\right)^{\frac{1}{5}} = \frac{1}{5}(2{\cdot}6020600 - 3),$$
$$= \bar{1}{\cdot}9204120.$$

$$\therefore \left(\frac{R}{V}\right)^{\frac{1}{n}} = {\cdot}83255;$$

$$\therefore 1 - \left(\frac{R}{V}\right)^{\frac{1}{n}} = d = {\cdot}16745;$$

and $100\,d = 16{\cdot}745$.

After finding the rate of depreciation, which in this case is ·16745 per unit, or 16·745 per cent, we have only to write the depreciation off the decreasing value each year as follows :—

Value of asset at beginning of period	£1000
Depreciation on £1000 at 16·745 per cent .	167·45
Value at end of first year	£832·55
Depreciation on £832·55 at 16·745 per cent .	139·41
Value at end of second year	£693·14
Depreciation on £693·14 at 16·745 per cent .	116·06
Value at end of third year	£577·08
Depreciation on £577·08 at 16·745 per cent .	96·63
Value at end of fourth year	£480·45
Depreciation on £480·45 at 16·745 per cent .	80·45
Value at end of fifth year as given	£400

The above statement, when converted into pounds, shillings, and pence, may be put into the following form :—

SCHEDULE

SHOWING THE AMOUNT OF DEPRECIATION AT 16·745 PER CENT WRITTEN OFF EACH YEAR FROM THE DECREASING VALUE OF AN ASSET COSTING £1000 FOR FIVE YEARS SO THAT AT THE END OF THE FIVE YEARS THE VALUE OF THE ASSET STANDS AT £400.

Year.	Decreasing Value of Asset.			Depreciation each Year.			Remainder at end of Year.		
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
1	1000	0	0	167	9	0	832	11	0
2	832	11	0	139	8	2	693	2	10
3	693	2	10	116	1	2	577	1	8
4	577	1	8	96	12	8	480	9	0
5	480	9	0	80	9	0	400	0	0
				600	0	0			

The formula used above, $V(1-d)^n = R$, may be used to find any one of the values involved when the other three are given. Thus, if it is required to find the number of years in which the value of a ship will be reduced one-half, if depreciation is written off the value of the ship at the rate d per unit on the annually decreasing value, we have to substitute in the equation $V = 1$ and $R = \frac{1}{2}$, and we get at once $(1-d)^n = \frac{1}{2}$. Or, working the question out from first principles, we may take 1 as the original value of the ship. At the end of the first year, after writing off depreciation, the value will be $(1-d)$; at the end of the second year, since $(1-d)$ will decrease at the same ratio as 1 did the first year, the value will be $(1-d)\ (1-d) = (1-d)^2$. And so on, so that at the end of the nth year the value will be $(1-d)^n$; but the value is also $\frac{1}{2}$, hence we have $(1-d)^n = \frac{1}{2}$. To solve this equation take logarithms of both sides, and we have $n \log (1-d) = \log 1 - \log 2$.

Hence
$$n = -\frac{\log 2}{\log (1-d)}.$$

If we take the value of the ship as £1000, and $d = \cdot16745$, as in the former example, we get

$$\begin{aligned} n &= -\frac{\log 2}{\log (1 - \cdot16745)} = -\frac{\log 2}{\log \cdot83255}; \\ &= -\frac{\cdot3010}{1\cdot9204} = -\frac{\cdot3010}{-\cdot0796}; \\ &= 3\cdot78 \text{ years.} \end{aligned}$$

On referring to the schedule on the opposite page, it will be seen that at the end of four years the value of the asset is £480 : 9s., and as in the present case we wish to find when the value of the ship costing £1000 will be reduced to one-half, namely £500, we see that the formula giving 3·78 years is correct.

INSURANCE

INSURANCE IS A CONTRACT BY WHICH A PERSON, CALLED THE INSURER OR UNDERWRITER, IN CONSIDERATION OF A CERTAIN SUM OF MONEY, CALLED THE PREMIUM, BECOMES BOUND TO INDEMNIFY ANOTHER PERSON, CALLED THE INSURED OR ASSURED, TO A SPECIFIED EXTENT IN THE EVENT OF A CERTAIN CONTINGENCY OCCURRING DURING THE TIME THE CONTRACT IS IN FORCE.

The contingency may be certain risks to which the insured or his property is exposed, or certain liabilities which he may incur. He may insure himself against the risk of accidents happening to him, his property against the risk of fire, and his business from loss through any of his employees meeting with an accident and claiming against him under the Employers' Liability Acts. A written statement or deed, on duly stamped paper, called a policy of insurance, is by statute requisite to the constitution of the contract. The policy specifies the name of the insured, the risk covered, the premium paid, the duration of the policy, and the general conditions upon which the insurance is effected. The policy is signed by the insurer. A policy of insurance being a contract of indemnity, the subject insured must be one in which the insured has an interest, otherwise such policies might be used for waging or gaming. The words assurance, assurer, and assured are sometimes limited to life subjects, and the words insurance, insurer, and insured to other subjects, such as property.

The different forms of insurance may be shortly grouped as follows —

1. Fire insurance.
2. Marine or maritime insurance.
3. Life assurance.
4. Accident and guarantee insurance.
5. There are many other minor forms of insurance, such as against loss of licences, death of animals from natural causes, etc.

FIRE INSURANCE

FIRE INSURANCE IS A CONTRACT BY WHICH THE INSURER UNDERTAKES, IN CONSIDERATION OF THE PREMIUM, TO INDEMNIFY THE INSURED AGAINST LOSS THROUGH FIRE TO A SPECIFIED EXTENT TO THE PROPERTY WHICH IS THE SUBJECT-MATTER OF THE INSURANCE.

The deed embodying the contract is called a fire insurance policy, and is for a specified time, usually a year, but is renewable on payment of a further premium. The contract being one of indemnity, the insured must have an interest in the subjects covered by the policy at the time of the damage. Immediately property insured changes hands the policy should be endorsed by the company to the new owner, otherwise it is of no use. Thus, when any one buys a house he should insure it or get an assignation to an existing policy immediately his offer is accepted, and he should not wait until he has paid the price.

If a policy contains, as is usually the case, what is called an "average clause," the insurer is only liable to pay such a proportion of the loss as the sum insured bears to the whole value of the property, part of which only is insured. Thus, if a warehouse worth £1500 is insured for £1000, and £600 of damage is done to the warehouse by fire, the amount payable under a policy with an average clause would only be $\frac{1000}{1500}$ths, or $\frac{2}{3}$rds, of £600, which is equal to £400, the idea being that the policy covers the whole property and each separate article of it to an average extent of two-thirds of its value, otherwise the insured would enjoy the benefit of an insurance extending over the whole of his property, £1500, although he paid a premium for only £1000 of it. This practice is perhaps not widely enough known, and many people imagine when they are under-insured that, as the whole property will not likely be lost, the whole damage will be recovered from the insurance company in the event of partial loss, but this is not the case.

The rate of premium is quoted at so much per cent, and varies according to the risk. The following are some of the premiums for first-class risks, that is, those where the buildings are of brick or stone, and slated or tiled, without stove or external hazard:—

Private dwelling-houses	1s. 6d.
Household furniture therein	2s.
Stables and contents	2s. 6d.
Shops, non-hazardous, from	2s.
Bakers' shops, with oven	2s. 6d.
Do. without oven	2s.
Boat builders	5s. to 21s.
Bootmakers	2s. 6d.
Grocers	2s. 6d.
Butchers	2s.
Hotels	2s. 6d.
Confectioner, dressmaker, draper, milliner, hosier, furniture dealer, tobacconist, upholsterer	3s. 6d.

These are specimens of the rates of the best fire insurance companies in the country, which are associated together by an agreement under which they do not compete for business by under-cutting each other, but charge the same premium under the same conditions for the same risk. These companies are called tariff companies. No policy is issued for a less premium than 2s. A policy may be obtained for one day, as in the case of a bazaar. Policies for seven years may usually be effected for six years' premiums paid down. In annual policies fifteen days' grace is allowed for the payment of the renewal premium.

The rent of a property may be insured, so that in the event of the total destruction of the property the revenue derivable from the property is paid by the insurance company during the period in which the property is untenantable or is being rebuilt.

As a rule, where buildings are in blocks the rate of premium for each separate portion of the block is the highest rate chargeable for any particular portion of the block. Thus, the rate for dwelling-houses in the same block as shops is 2s. or upwards, in place of 1s. 6d., the rate for houses in blocks where there are no shops.

The stamp on a fire insurance policy is for 1d., no matter what the amount.

A fire insurance policy may be vitiated :—

1. If the fire is caused through the wilful act or with the connivance of the insured.
2. Through wilful misstatement or false description of the risk at the time of effecting the insurance, or if the claim for loss or damage is fraudulent.
3. Through the erection of any stove or heating apparatus or other alteration in the building so as to materially alter the nature of the risk without the sanction of the insurance company.

Loss of business profits through fire are not covered by an ordinary fire policy, but profits and standing charges, such as interest on borrowed capital, may be made the subject of a separate contract; nor are deeds, bonds, script, bills of exchange, money, or books of account, except at their value as paper. A fire insurance company has usually the right under its policies to re-instate the property which may be damaged or destroyed instead of paying the amount of the loss in cash.

The commission allowed to agents for the collection of fire premiums by the tariff companies is at the rate of 15 per cent on the premiums collected.

MARINE INSURANCE

MARINE INSURANCE IS A CONTRACT WHEREBY A PERSON HAVING AN INTEREST DEPENDING UPON THE SAFETY OF PROPERTY EXPOSED TO RISK AT SEA MAY BE INDEMNIFIED BY PAYING A SUM, CALLED A PREMIUM, TO THE INSURER OR UNDERWRITER.

The subjects insured must be lawfully insurable. Thus an insurance of contraband articles is not enforcible. The contract of insurance being one of indemnity, the insured must have an insurable interest in the subjects insured at the time of the loss, because unless he is to sustain damage from the loss he does not require to be indemnified. All

the risks incident to a sea voyage may be insured against. These consist of:—

1. The goods or cargo carried, including their cost, the expenses of shipment, and the cost of their insurance.
2. The ship itself, including the value of the ship at the outset of the voyage, the cost of the outfit stores, provisions for the crew, wages paid or due, and also the cost of insuring the ship. This insurance is spoken of as insurance on hull and outlay, or on the whole ship and the expenditure connected with its outfit.
3. The freight, which is lost through the goods not being delivered, and the cost of insuring the freight. The insured is thus guaranteed against loss through freight not being received in consequence of the vessel being lost.

Insurances are made either under time policies, that is, policies for a certain period, usually a year, or under voyage policies, that is, policies covering a specific voyage.

Valued policies are those in which the property or goods insured are valued, and the values stated at the time of effecting the insurance. In open policies no values are stated, the sum in the policy is the limit of the insurer's liability, and when a loss occurs the values must be proved.

The ordinary form of Lloyd's policy contains three chief stipulations:—

First. The insurers take upon themselves certain specific risks through which loss may happen to the owners of the vessel or cargo during a certain term or duration of the insurance which is clearly set forth.

Second. There is what is called the "sue and labour clause," under which the insured must exert every effort to save the property insured when in peril, and the insurers agree to contribute towards any expenses which may be incurred.

Third. Petty claims are avoided by excluding, except in events specified, claims below a certain percentage of the total sums at risk, or from claims for damage to certain goods of a specially hazardous description.

When the master of a ship cuts away masts or cables and throws goods overboard to lighten the ship (jettison)

with the view of saving the remainder of the ship and cargo, the loss so occasioned is brought into a "general average," in which the ship, cargo, and freight bear a proportionate share of the sacrifice made for the common good, and this is borne by the underwriters in proportion to the insurances. "Particular average" loss is a loss for which no contribution can be levied, it must be borne alone by the owners of the goods sustaining the loss. Such loss is not a sacrifice for the general benefit, hence the freedom from liability of the other goods and gear.

When the insurer has to pay for total loss, he is entitled to the goods abandoned and all the rights and claims of the insured connected with the abandonment.

LIFE ASSURANCE

LIFE ASSURANCE IS A MUTUAL CONTRACT BY WHICH AN INSURANCE COMPANY UNDERTAKES TO PAY A CERTAIN SUM UPON THE DEATH OF THE ASSURED, OR UPON HIS ATTAINING A CERTAIN AGE, AND THE ASSURED BECOMES BOUND TO PAY CERTAIN SUMS IN NAME OF PREMIUM.

The holders of a life assurance policy must have an interest in the life of the assured at the time of effecting the policy. A man, it has been held, has an unlimited interest in his own life, and may legally assure it for any amount. Life assurance, however, is not necessarily a contract of indemnity, and the whole sum is payable on the death of the assured, or on the maturing of the policy otherwise. The contract, in fact, is one of mutual risk. In the case where a creditor assures the life of his debtor, or has a life policy assigned to him in security, the policy does become, however, an indemnity one.

There is great variety in life assurance business, and in the nature of the risks assured. The great majority of the policies, however, are for the whole term of life, and are payable only on the death of the assured. Such an assurance can be effected either by a uniform annual

premium payable till death, by increasing or decreasing premiums, by a limited number of premiums, or by one single premium paid at the time of effecting the policy.

Endowment assurances are assurances for securing the payment of a sum on attaining a specified age, or at death, if that occur before attaining such age. Policies for a limited number of years are frequently effected in connection with loan transactions, but such short-term assurances do not form satisfactory securities for loans, because in the event of the period covered by the policy being survived, if the borrower's life is then uninsurable in consequence of ill-health a new policy cannot be taken out.

Joint life assurances are those effected on the lives of two or more persons, where a sum of money is to be payable as soon as one of them dies, or on the death of the survivor.

Survivorship assurances are those which effect the assurance of a sum to be paid at the death of one life, should that event occur during the existence of another life.

Written notice of the assignation of a life policy must be sent to the head office or one of the head offices of an insurance company before it is effectual. On receiving such notice, together with a fee of not more than 5s., the company is bound to make an acknowledgment of the assignation. To facilitate the office making such an acknowledgment, it is usual to send notices of assignation in duplicate, when the office returns one copy bearing a memorandum that the other has been received.

The stamp duty on a life insurance policy amounts to 1s. per cent. on the sum insured.

ACCIDENT AND GUARANTEE INSURANCE

ACCIDENT INSURANCE IS A CONTRACT SIMILAR TO THAT OF LIFE INSURANCE, UNDER WHICH THE INSURER CONTRACTS TO PAY A CERTAIN SUM IN THE EVENT OF INJURY OR DEATH FROM ACCIDENT.

It is to a limited extent a contract of indemnity. The existence of such a policy, and any payment received under

it, does not prevent the assured from recovering damages in respect of his injury, or his representatives recovering damages in the event of his death, from those responsible for the accident.

GUARANTEE INSURANCE IS A CONTRACT UNDER WHICH THE INSURER BECOMES BOUND TO IMPLEMENT A FINANCIAL OBLIGATION UPON FAILURE OF THE PERSON PRIMARILY RESPONSIBLE FOR ITS FULFILMENT.

The insurer is also called the guarantor or surety, and the insured is usually the creditor or the employer.

BILLS OF EXCHANGE

A BILL OF EXCHANGE IS AN UNCONDITIONAL ORDER IN WRITING, ADDRESSED BY ONE PERSON [CALLED THE DRAWER] TO ANOTHER [CALLED THE DRAWEE], SIGNED BY THE PERSON GIVING IT, REQUIRING THE PERSON TO WHOM IT IS ADDRESSED TO PAY ON DEMAND OR AT A FIXED OR DETERMINABLE FUTURE TIME A SUM CERTAIN IN MONEY TO OR TO THE ORDER OF A SPECIFIED PERSON, OR TO BEARER.—BILLS OF EXCHANGE ACT, 1882, SEC. III.

A bill is called an acceptance after the drawee has signed it in token of his agreeing to the request. The drawee is then called the acceptor.

An inland bill is a bill which, on the face of it, purports to be drawn and payable within the British Islands.

A foreign bill is a bill in connection with foreign trade, or one which does not come under the above definition.

A bill may be drawn in the form of a promise to pay, when it is called a promissory note.

Every bill and promissory note, except a bill payable on demand, must be written upon a piece of paper having an *ad valorem* stamp previously impressed upon it. It cannot be afterwards stamped, except in the case of it having been impressed with a stamp of sufficient amount but of

improper denomination. Bills or notes drawn or made out of the United Kingdom before being presented for payment or endorsement, or being negotiated in any way, require to have affixed to them and cancelled an adhesive stamp of the proper amount. The *ad valorem* duty chargeable is at the rate of 1s. per cent. On a bill payable on demand the duty is 1d., and may be denoted by an adhesive stamp. The following is an example of an ordinary inland bill :—

EDINBURGH, 29*th May* 19.....

1s. Stamp.

Two months after date, pay to me or my order the sum of One hundred pounds Sterling for value received.

(Signed) DAVID BROWN.

To Messrs. CHARLES DODS & COMPANY,
Merchants,
London.

The following is the form of the above bill as a promissory note :—

LONDON, 29*th May* 19 . . .

1s. Stamp.

Two months after date, we promise to pay to you or your order the sum of One hundred pounds Sterling for value received.

(Signed) CHARLES DODS & COMPANY.

To Mr. DAVID BROWN,
Edinburgh.

Charles Dods & Co. accept the bill when it is in the first form by signing their name either across the face of the bill or underneath the signature of David Brown. David Brown may then endorse the bill and hand it over to a third party, who in his turn may pass the document on to another party ; the endorsation having the effect of assigning the debt. Bills of exchange are usually negotiated finally by bankers.

Foreign bills of exchange are sometimes drawn in sets of two or three, each bill being sent by a different route, so that the risk of one bill of the set not turning up is very little. Only one of the set requires to be stamped. The following is an example of a foreign bill :—

PARIS, 29*th May* .....

At one month after sight of this our first of exchange (second and third of same tenor and date being unpaid) pay to our order the sum of One hundred pounds Sterling for value received.

(Signed) A. F. ROGET ET FILS.

To Messrs. CHARLES DODS & Co.,
Merchants,
London.

Bills are regarded by a merchant as bills receivable or bills payable, according as the cash which they represent is payable or receivable by him. If a debt of £100 is due to a merchant by one of his customers, he might have some difficulty in recovering the asset, because he would have to prove his debt. If the customer, however, accepts a bill payable to the merchant, the nature of the asset is changed, because what was formerly due on an open account is now due in the form of a bill receivable. When a merchant receives the cash for a bill the form of his asset is again changed from a debt due on a bill receivable to actual cash on hand. Similarly, if a merchant is due to one of his creditors £100, that creditor would require to properly constitute his claim before he could enforce payment, but once the merchant has accepted a bill for the amount it changes his liability from a liability on an open account to a liability under a bill payable.

The peculiar privilege of bills is that payment of the amount may be enforced summarily, without the necessity of an action for constituting the claim.

The Bills of Exchange Act of 1882 codifies the law in regard to bills of exchange, cheques, and promissory notes.

APPORTIONMENT

APPORTIONMENT IS THE DIVISION OF A SUM INTO PROPORTIONATE PARTS ACCORDING TO THE RIGHTS AND INTERESTS OF DIFFERENT PARTIES, OR THE DIVISION OF A WHOLE INTO PARTS PROPORTIONED TO THE RIGHTS OF CLAIMANTS.

Thus, if an annuity of £400 per annum is payable to A at the terms of Whitsunday and Martinmas, so long as he is alive, with the provision that A's heirs are to get a proportionate part for the period up to the date of his death should he die between terms, then in the event of A dying on the 26th of November his heirs will be entitled to receive the proportionate part for the fifteen days from 11th November, when he received his last payment, to the 26th November, when he died, that is, his heirs will be entitled to receive $\frac{15}{365}$ths of £400. This sum, amounting to £16 : 8s. 9d., might be payable on the 26th November, the date of A's death, if a provision to that effect were contained in the deed under which the annuity was payable, but in the absence of such a provision it would be payable at the next term following A's death, namely Whitsunday. It is important to observe that in making this allocation we have looked upon the annual sum and have taken the proportion upon that for the number of days during which A was entitled to receive the annuity. Had we considered merely the £200 which fell due at Whitsunday, and taken into account the number of days between 11th November and 15th May, namely 185 days, the sum we would have brought out as payable to A's heirs would have been $\frac{15}{185}$ths of £200, which is equal to £16 : 4s. 4d., so that by this method A's heirs would get 4s. 5d. less than by the correct method. Although this latter method is sometimes adopted, it is not the correct one, because the £200 really represents a half-year's payment, and is therefore in respect of $182\frac{1}{2}$ days. If we take $\frac{15}{182\frac{1}{2}}$ths of £200 we get £16 : 8s. 9d., as before.

An apportionment may be (1) in respect of time, where, as in the above example, the claimants' interests are successive; and (2) in respect of estate, as where a house and lands, let on lease at one entire rent, are left by the owner in his will to different parties, that is, the house to one party and the lands to another, in which case the entire rent would be apportioned according to the respective values of the house and of the lands. In the case of a furnished house, let at an entire rent, it would not be fair to apportion in the ratios of the value of the house and furniture, as the furniture is so much more perishable. A fairer proportion might be got by taking the ratio of 4 per cent on the value of the house to 10 per cent on the value of the furniture, the house by this method being considered as worth 25 years' purchase, and the furniture as worth 10 years' purchase.

The use of Interest Tables in apportioning Sums for different periods.

Where a number of sums have to be apportioned over different periods of time, it is very serviceable to have an easy method of making the apportionment. Interest tables, showing the interest on different sums for any number of days at 5 per cent, such as the well-known tables of the late Mr. James Laurie, published by Messrs. George Routledge & Sons, are very useful for this purpose. The rule to use is, shortly, as follows:—TO FIND THE PROPORTIONATE SUM FOR A CERTAIN NUMBER OF DAYS, HAVING GIVEN THE SUM PER ANNUM, MULTIPLY THE SUM PER ANNUM BY 20 (*i.e.* reduce pounds to shillings), AND FIND FROM THE TABLE THE INTEREST AT 5 PER CENT ON THIS NUMBER OF POUNDS FOR THE GIVEN PERIOD. Thus in the foregoing example the amount per annum is £400, which multiplied by 20 gives £8000, and the interest on £8000 for 15 days at 5 per cent is £16 : 8s. 9d., as already found. The reason why interest tables at 5 per cent may be used for such questions is seen if we consider that if S be the sum with which we enter or look up the tables of interest at 5

per cent for 15 days, the result given in the table is $S \times \frac{15}{365} \times \frac{5}{100} = S \times \frac{15}{365} \times \frac{1}{20}$. If we enter the table with $S \times 20$, we get as our result $S \times 20 \times \frac{15}{365} \times \frac{1}{20}$, which is equal to $S \times \frac{15}{365}$, what we wish.

In apportioning any sum under £18 : 5s. (365 shillings) over different numbers of days, the same tables may be used in a slightly different way. Since the interest on a sum for a certain number of days is equal to the interest on the number of days looked upon as pounds for the number of days there are pounds in the sum, we have only to look upon the number of days as the sum, and the sum as the number of days. Thus, to allocate £13 over 40, 93, and 500 days, we have merely to find from the tables the interest on £40, £93, and £500, for $13 \times 20 = 260$ days at 5 per cent, and we get £1 : 8s. 6d., £3 : 6s. 3d., and £17 : 16s. 2d.

The Apportionment Act of 1870.

At common law sums payable at regular periods of time are not apportionable, apart from some special provision in the deed under which the sum is payable. Thus, at common law if the liferenter of a property died the day before the term upon which his liferent was payable, his heirs or executors were formerly entitled to nothing more than if he had died the moment after receiving the previous term's payment. The objections to such a state of matters are easily seen. The person in receipt of an annuity, believing that he will receive a payment on the term day, may live fully up to his income, and may incur obligations in view of what he expects to receive; but if he dies the day before the term the annuity would not be payable, and unless he left other funds the obligations he had undertaken would never be implemented. The hardships created by regular payments such as rents and annuities not being apportionable, where no such provision was made in the

deed regulating the payment of the rent or annuity, resulted in the passing of an Act for the more effectually securing the payment of rents, in the eleventh year of the reign of George II. (the Distress for Rent Act, 1737), which did not apply to Scotland. A further and wider Act, known as the "Apportionment Act of 1834," which was held to apply to Scotland, was also passed, and in 1870 a most important and still wider Act was passed which extends the principle of apportionment to all cases where apportionment is possible, except to the case of annual sums made payable in policies of assurance. The main provisions of "The Apportionment Act, 1870," which was passed on 1st August 1870, and which is the most recent statute dealing with the matter, are as follows :—

"II. RENTS AND PERIODICAL PAYMENTS SHALL ACCRUE FROM DAY TO DAY, AND BE APPORTIONABLE IN RESPECT OF TIME.—From and after the passing of this Act all rents, annuities, dividends, and other periodical payments in the nature of income (whether reserved or made payable under an instrument in writing or otherwise), shall, like interest on money lent, be considered as accruing from day to day, and shall be apportionable in respect of time accordingly."

"III. APPORTIONED PART OF RENT, ETC., SHALL BE PAYABLE WHEN THE NEXT ENTIRE PORTION SHALL HAVE BECOME DUE.—The apportioned part of any such rent, annuity, dividend, or other payment shall be payable or recoverable in the case of a continuing rent, annuity, or other such payment, when the entire portion of which such apportioned part shall form part shall become due and payable, and not before ; and in the case of a rent, annuity, or other such payment determined by re-entry, death, or otherwise, when the next entire portion of the same would have been payable if the same had not been so determined, and not before."

Section IV. of the Act contains provisions making the entire portion of the rent or other periodical payment payable to the heir, from whom the apportioned part is recoverable by the executors or other parties entitled to the same, less "all just allowances."

"V. INTERPRETATION OF TERMS.—In the construction of this Act—

"The word 'rents' includes rent-service, rent-charge, and rent-seck, and also tithes and all periodical

payments or renderings in lieu of or in the nature of rent or tithes."

"The word 'annuities' includes salaries and pensions."

"The word 'dividends' includes (besides dividends strictly so called) all payments made by the name of dividend, bonus, or otherwise out of the revenue of trading or other public companies, divisible between all or any of the members of such respective companies, whether such payments shall be usually made or declared at any fixed times or otherwise; and all such divisible revenue shall, for the purposes of this Act, be deemed to have accrued by equal daily increment during and within the period for or in respect of which the payment of the same revenue shall be declared or expressed to be made, but the said word 'dividend' does not include payments in the nature of a return or reimbursement of capital."

"VI. ACT NOT TO APPLY TO POLICIES OF ASSURANCE.—Nothing in this Act contained shall render apportionable any annual sums made payable in policies of assurance of any description."

"VII. NOR WHERE STIPULATION MADE TO THE CONTRARY.—The provisions of this Act shall not extend to any case in which it is or shall be expressly stipulated that no apportionments shall take place."

Questions of apportionment occur chiefly in connection with testamentary deeds where the liferent of an estate is left to one party, and the capital, or fee of the estate, to another. It is most important, therefore, in such cases to determine the exact amount of the capital of the estate which is liferented, and the various provisions of the Act, so far as not modified by the testamentary writings or trust deed, must be exactly given effect to.

It is important to observe that, according to Section V. of the 1870 Act, all revenue from trading or other public companies must be deemed to have accrued by equal daily increments during the period in respect of which the payment of the revenue "shall be declared or expressed to be made." The date of the actual payment of the revenue is of no moment, but the important factor is the period for which the revenue is "declared or expressed to be made."

Some companies are very particular in stating on the counterfoils of their dividend warrants the period during which a dividend paid has been earned, but others give no indication whatever, and it is often difficult to determine the period even from the Balance Sheet and Annual Report. The result of giving effect to the provisions of the Act of 1870, where the estate to be liferented consists largely of shares, the dividends upon which are payable a considerable time after the period during which they have been "made," is that the liferenter may not receive any income for a year or more after the testator's death. This loss, however, is made up to the liferenter or his heirs when the shares are sold or when he dies. Testators, to obviate this hardship, frequently provide for the payment of a slump sum at the first term occurring after death.

Under the Act of 1870, therefore, rents, annuities, dividends, and other periodical payments of the nature of income, are to be considered, like interest on money, as accruing from day to day, and apportionable in respect of time accordingly, and the apportioned part is payable when the next entire portion is payable. The Act vests in a liferenter or proprietor and transmits to his executors the rent due for the period he survives of a broken term, the rent so vested being the proportion for the period he lived into the term.

Commercial Apportionments.

In balancing the books of a commercial or manufacturing concern at any particular date, there are usually certain charges, such as rent, taxes, fire insurance, interest, feu-duty, etc., which have only been partially paid during the period covered by the Profit and Loss Account, and which so far as accrued have to be allowed for and charged against the profit. These charges appear in the Balance Sheet as a liability under the general heading of "Charges accrued," or under specific headings, such as "Rent accrued to date." Similarly, if rents or taxes are paid in advance, an apportionment has to be made, and the amount reserved goes to increase the profit, and appears in the Balance Sheet as an asset under

the heading of "Charges paid and unexpired," or under specific headings, such as "Rent paid in advance."

The purpose of a Profit and Loss Account being to show the profit for a specific period, the whole income for that period must be taken into account, whether it has been received or is still due, and any income so outstanding appears as an asset in the Balance Sheet. Care, however, should be taken that all accruing income from rents, interest, etc., which appears as an asset is a good asset and likely to be received, as under no other heading are assets so often overestimated in Balance Sheets.

In balancing the accounts of a concern yearly or half-yearly, apportionments almost always have to be made if any degree of accuracy is desired, and where a concern changes hands, as in the case of the conversion of a business into a limited liability company, or on the assumption of a new partner, or where it is required to find the amount due to a retiring partner, or to the representatives of a deceased or bankrupt partner, apportionments require to be very carefully made so as to be absolutely fair to all parties. Most items that occur annually are easily apportioned and present no difficulty, but in the case of rents or dividends payable half-yearly, quarterly, or monthly, considerable care must be exercised to arrive at correct results. Thus, to take a practical example: Suppose the business books of a concern are balanced at 30th June, what is the proportion of the rent which should be taken as a liability, supposing the last half-yearly payment of rent was duly paid on 15th May? If the half-yearly rent is taken as £100, the following solutions may be given to the question:—

1. $\frac{46}{365}$ of £200 (the annual rent)
   or
   $\frac{46}{182\frac{1}{2}}$ of £100
   = £25 : 4s. 1d.

2. $\frac{46}{180}$ of £100
   or
   £100 *less* $\frac{134}{180}$ of £100
   = £25 : 11s. 1d.

Since the 28th of May is the removal term, and the rent paid on the 15th May is for occupation up to the 28th, the following additional solutions may be given of the question if the period of occupation be held to govern the apportionment, and not the date of payment of the rent:—

3. $\frac{33}{365}$ of £200
or
$\frac{33}{182\frac{1}{2}}$ of £100
} = £18 : 1s. 8d.

4. $\frac{33}{184}$ of £100
or
£100 *less* $\frac{151}{184}$ of £100
} = £17 : 18s. 8d.

Of the four solutions the first and third are correct on the assumptions made, as they treat the payment as a yearly one. The second and fourth solutions are not correct, as they treat a payment for half a year, or $182\frac{1}{2}$ days, as a payment for 180 or 184 days. In arriving at the above solutions the days have been counted as from the 15th or 28th of May, these dates being thus adopted as the dates of entry. Suppose, however, that the business was begun on the 11th or 28th of November, then the result of counting the days from the 15th or 28th of May is to charge the Profit and Loss Account with rent for half a year plus 46 or 33 days, that is, for $228\frac{1}{2}$ days or $215\frac{1}{2}$ days, whereas the number of days between the 11th and 28th November and the 30th June is 231 days and 214 days. In such a case, therefore, it would be more correct if the 11th and 28th November be taken as the dates to count from, and the following additional solutions may be given:—

5. $\frac{231}{365}$ of £200 *less* £100 = £26 : 11s. 6d.

6. $\frac{214}{365}$ of £200 *less* £100 = £17 : 5s. 2d.

From the above it will be seen that the correct method to employ depends upon the special circumstances of each case. The principle, however, always remains the same—that the rent should be charged according to the amount accrued during the period embraced by the Profit and Loss Account.

Rents.

In Scotland the rents of houses and shops are, with few exceptions, payable at Whitsunday (15th May) and Martinmas (11th November), and the year runs as a rule from the Whitsunday term. Although the rents are payable on these dates, possession of the subjects is not given to the tenant as a rule until 28th May, and he is entitled to occupy them for a full year from that date. Similarly, a tenant who gets entry at Martinmas obtains possession on 28th November, and does not remove until 28th November in the following year. In view of the fact that the rents are due for the actual possession of the subjects, one would have assumed that the apportionment would fall to be made as from the date on which the possession commenced, and in commercial apportionments the removal terms should as a rule be taken. Thus, in balancing the accounts of a hotel which closes its books on the 30th June, where the rent payable is £1200 per annum, the correct sum to appear as a liability in the Balance Sheet, and to be charged in the Profit and Loss Account as accrued to 30th June would, on the assumption of a Whitsunday entry, and that the rent due at 15th May has been paid, be the proportion of £1200 for the thirty-three days between 28th May and 30th June, because the last instalment of rent, namely £600, paid on 15th May was for possession up to 28th May, and to apportion from 15th May would be to charge in the Profit and Loss Account the rent for the period from 15th May to 28th May twice. Similarly, if the proprietor of a house die on 20th May, one would have supposed that his executor could have no right whatever to share in any apportionment of the rent payable by a tenant who did not get

possession of the house until eight days after the death, viz. 28th May. But that is not the interpretation which has been given to the Act by the Court. In the leading case of Campbell *v.* Campbell, 18th July 1849, 11 Dunlop, 1426, it was in effect settled that the apportionment should take place from 15th May, the term when the rents were legally payable, and not from the term when possession was actually obtained.

The circumstances in the case of *Campbell* were as follows:—Campbell of Lochnell, heir of entail in possession of the estates, died on 18th May 1846, that is, three days after the legal term of Whitsunday. The farms upon the estate were grass farms. The entry was at Whitsunday, but the first half-year's rent was, under the lease, payable at Martinmas thereafter, and the second at Whitsunday following, and so on. The executor of the deceased Lochnell claimed at common law the rents legally due at Whitsunday, but conventionally payable at Martinmas 1846, and under the Act a proportion of the second half-year's rents of crop 1846, payable at Whitsunday 1847, effeiring to the three days between the term and Lochnell's death. The Court sustained that claim. The view taken was that the half-year's rents payable at Martinmas 1846 had wholly vested in the late Lochnell, being rents for the crop of a half-year during the whole of which the tenants derived their rights from him as proprietor, and which were legally payable at Whitsunday, when he was still in life. As to the rents payable at Whitsunday 1847, these were also rents legally due for a half-year, during part of which Lochnell had been proprietor.

This case was decided with special reference to the Apportionment Act of 1834, and before the existing Act of 1870 was passed. But in the decisions that have been given under the Act of 1870, Campbell's case has been recognised as a binding authority.

Thus in 1892 Lord Low decided in a case where the late Mr. H. M. Horsbrugh was judicial factor, and where there was a large amount of house property in Edinburgh

belonging to the estate, that the terms at which the rents were payable, namely 15th May and 11th November, were the correct periods to count from. The Accountant of Court had wished to take the removal terms.

An interesting case on the subject is Graham (Tennent's executor) *v.* Lawson, decided by Lord Low on 2nd November 1897, and reported in the *Scottish Law Reporter*, vol. xxxv. p. 72. In that case a liferentrix let a house for five years, with entry at Whitsunday, at a rent payable half-yearly at Whitsunday and Martinmas, the first half-year's rent being payable at Martinmas for the half-year preceding. She died on 14th June 1896, and her executor sued the tenant for the half-year's rent due at Martinmas 1896. He maintained that the whole of the half-year's rent vested in the liferentrix by her survivance of the term of Whitsunday 1896, but Lord Low held that the executor was only entitled to the portion of the rent effeiring to the period between Whitsunday and the date of death. His lordship's opinion is very clear and instructive, and should be read by all who wish to understand this abstruse subject.

In view of these decisions of the Court, an accountant should meantime apportion rents between the heir and executor as from the 15th May or 11th November to the date of death.

The rent of land is payable in respect of its productive quality, and hence each year's crop should have allocated to it its respective year's rent. The possession of land for agricultural purposes is thus from year to year, although the rent is as a rule payable in two equal portions half-yearly. To the majority of farms in Scotland entry is given at Martinmas, because at that term the crop of that summer has been reaped, and the land requires to be prepared for the next crop. The first half-year's rent naturally falls to be paid at the Whitsunday following, for possession up to that date, and the balance at Martinmas. These are called the legal terms of payment. In the case of a pastoral farm where the entry is at Whitsunday, the first payment of a half-year's rent is legally due at the date of entry

and the second payment at Martinmas, the two together being for the crop of grass of that year. Where rent is not paid at the legal terms, we have fore or fore-hand rent when it is accelerated, and back or back-hand rent when it is postponed. These fore-hand and back-hand terms of payment are called the conventional or contractual terms of payment, as distinguished from the legal terms. In questions of apportionment the rule is that the legal terms govern the apportionment except where the rent is fore-hand, so that to accelerate the terms of payment of rent may have an effect on the interests of heirs, but postponing it has none. When the owner of an estate dies, the rents effeiring to his executor are all arrears of rents payable but not paid at the date of death, and the apportioned parts of rents legally due accrued to the date of death.

Fore-hand Rents.

Fore-hand rents are those which by the terms of the lease are payable in advance of the terms at which such rents are legally due. House-rent, for example, is legally payable half-yearly, each payment being for occupancy for the half-year preceding; if the lease stipulated for payment half-yearly in advance, that would be a fore-hand rent. Fore-hand rents are not apportionable; what a landlord collects under his lease he retains, so that the executors of such a proprietor do not disburse a proportion to the heir in consequence of his death between terms, neither have they a claim on the heir for a proportion of the subsequently-due rent.

The distinction between grass-farm rents (which are legally payable in advance of occupancy) and rents which are contracted to be paid in advance of the legal terms should be noted; the latter are fore-hand rents, as already dealt with, the former are not. Accordingly, while the fore-hand rents are not apportionable, the grass-farm rents are so, so that when the proprietor of a grass-farm dies between Whitsunday and Martinmas his executors not only retain the Whitsunday rent already collected, but also claim from the heir a proportion of the Martinmas rent equal to the period from Whitsunday to the date of death.

Heritors' Assessment.

Heritors' assessment is chargeable against the heir if it was imposed by the heritors after the truster's death, even although it was levied for the purpose of defraying accounts incurred prior to the truster's death.

Heritors' assessment being levied on the heritors does not fall upon the liferenter, but is chargeable to capital.

Casualties.

Duplicands and casualties, whether payable under contracts entered into prior or subsequent to 1874 Conveyancing Act (see sec. 23), are revenue; the rule is uniform. Duplicands are not apportionable over the period of years during which they accrue (per Lord Ardwall in case of Macdougall's Factor, 27th Nov. 1908). See also Curle's Trs. (1903), S.L.T. 1908, xvi. 532.

Rent Charges.

Rent charges consist partly of capital and partly of revenue from the receiver's point of view, as each instalment consists of interest and capital repaid. From the point of view of the payer the total instalment should be apportioned, and the proportion charged against the liferenter for the period during which he liferented the estate.

Minister's Stipend.

When minister's stipend is a "just allowance" under Section IV. of the Act of 1870, and forms a deduction from rents, it is apportionable. The stipend from teinds is payable on 11th November, or on 15th May and 11th November, for the year closing at 11th November if payable in money, but if in kind it is held as payable for the year closing on the 29th September, and should be apportioned accordingly.

So far as the minister and his representatives are concerned, however, the Apportionment Act does not apply. The matter is regulated by the Statute 1672 c. 13. If the minister die after Whitsunday, his executors, whoever they are, take the first half of the stipend as executry, and his widow and nearest of kin, according to their rights, the other half of that year's stipend. This latter half is

technically called ann or annat. If the minister survive Michaelmas (29th September) the whole year's stipend is executry, and the next half forms the ann, and goes to the next of kin.

Wages and Salaries to Servants and Workmen.

In the case of a heritable estate the wages and salaries of servants and workmen are apportionable to the extent that the heir has received the benefit of their services since the death of the predecessor.

Annuities.

Annuities payable during the life of an annuitant, and which terminate on his death, are apportionable under the Act; so that an annuity created by a will, unless other stipulation is made under the will, is apportionable for the period between the date of death and the first term's payment; also, when the annuitant dies his executors are entitled to receive a proportion of the annuity in respect of the period from the last term's payment to the date of death. Thus in the case of an annuity of £5 payable on the last day of each month, left by a truster who died on the 5th August, the first instalment would be the apportionable part, namely £4 : 5s. 6d., for the twenty-six days between the 5th and 31st August, and would be payable on 31st August.

Interest on Money lent.

As interest on money lent accrues from day to day, it can very easily be divided between those claiming successively. As pointed out under the heading of Commercial Apportionments, care must be taken where interest is payable at particular terms that in calculating the allocations the original term of the investment of the money is taken as the date to count from, and in the case of a liferent interest, the apportionments at the beginning and at the end of the liferent should be so calculated as to give the liferenter the interest for the exact number of days to which he was entitled to it.

Dividends and Interest upon Shares and Debentures in Public Companies.

All dividends and interest upon shares and debentures in public companies should be apportioned according to the period for which the interest or dividend is "declared or expressed to be made," regardless of the actual date of payment.

Suppose a truster died on the 26th November who held shares upon which a dividend was paid on the 15th May of the following year in respect of profit earned during the year ending 31st December of the year of death, then of that dividend $\frac{330}{365}$ths would fall to capital, and the balance, $\frac{35}{365}$ths, being the proportion for the period from 26th November to 31st December, would fall to income.

Interim Dividends and Bonuses.

Some companies pay an interim dividend; that is, for the convenience of its shareholders the company, although balancing its books once a year, does not wait until the end of the year before declaring a dividend, but pays a sum to account, usually slightly under what the rate of the annual dividend is expected to be. After the close of the year, when the profit is ascertained, the balance of the dividend is paid. In all such cases where questions of apportionment arise it is necessary to consider the dividend for the whole year. Thus, suppose a company pays an interim dividend at the rate of 6 per cent per annum in July to account of the dividend for the year then current, and pays in January, after the profit for the year closed on 31st December has been ascertained, a dividend at the rate of 8 per cent for the half-year to 31st December, making altogether a dividend at the rate of 7 per cent for the whole year: then it is on the basis of a 7 per cent dividend for the whole year that any apportionment should be made. Thus if a truster died on 31st May, the correct apportionment of the dividends on the shares which fell to capital would be found by assuming that the dividend was

one at the rate of 7 per cent per annum, and allocating for the period from 1st January to 31st May. In actual practice this is worked out as follows: On the receipt of the interim dividend at the rate of 6 per cent in July, the proportion effeiring to capital, being the amount for the period from 1st January to 31st May, would be ascertained and placed to the credit of capital. On the receipt of the dividend for the next half-year, which would be received in January, the proportion thereof which would be required to bring the dividend from 1st January to 31st May already allocated at 6 per cent up to 7 would then be placed to capital. Further, suppose a truster die on 26th November, after having received the interim dividend at the rate of 6 per cent payable in July, the portion of the dividend paid in January following which would have to be placed to capital would be $\frac{330}{365}$ths of the dividend at the rate of 7 per cent per annum, less the amount of the interim dividend actually received. The portion effeiring to revenue would be $\frac{35}{365}$ths, being for the period from 26th November to 31st December at the rate of 7 per cent per annum.

Bonuses returned as Capital.

Bonuses not paid as dividends in the ordinary way, but as capital refunded, should be treated as capital.

Stocks and Shares bought and sold.

If the provisions of the Apportionment Act of 1870 are given effect to at the beginning and end of a liferent, then the same methods of apportionment must be applied when the stock is bought or sold. Thus if stock is bought on behalf of a trust where the estate is liferented, then the purchase price must be considered as including in it the dividend accrued to which, had the stock been held from the beginning of the trust, the liferenter's executor would be entitled if the liferenter had died on the day of the purchase, and this proportion of the dividend or dividends as received must be treated as capital. Similarly, when

stock is sold by such a trust the price received must be considered as including in it the dividend accrued to which the liferenter's executor would have been entitled if the liferenter had died on the day of the sale, and the proportion of the dividend or dividends so arrived at must be treated as income.

There are certainly a number of decisions which are against this view, but there can be no doubt that this is the only logical method to adopt. It is mathematically true, and always results in the liferenter getting the revenue for the exact number of days he has been alive and entitled to it. Any other method of apportionment results in absurdities and in hardships to either the liferenter or fiar.

Suppose a beneficiary entitled to the liferent of a trust estate dies on 15th April 1899, and that on the previous day, namely 14th April 1899, £2300 had been expended by the trust in the purchase of 100 Clydesdale Bank shares, costing £23 per share; then, if the purchase price is to be apportioned, the amount falling to the liferenter's executor would be 5s. 6d., as follows:—

Dividend of £50, being half of year's dividend at the rate of 10 per cent, payable in August 1899, for the half-year to 31st December 1898	£50	0	0
Proportion of dividend at 10 per cent accrued from 31st December 1898 to 15th April 1899 (date of death of liferenter), 105 days	28	15	4
	£78	15	4
Deduct—			
Amount of purchase price effeiring to capital, being the above £50, and £28 : 9s. 10d., proportion of dividend from 31st December 1898 to 14th April 1899, paid for out of capital in purchase price of £2300 . .	78	9	10
	£0	5	6

This is exactly equivalent to one day's revenue of the stock, which is the precise amount which should be received

by the liferenter's executor, seeing the liferenter only lived one day after the purchase of the stock.

If it is held that the cost of the stock purchased is not apportionable, but that the Act applies at the termination of the liferent, the amount effeiring to the liferenter's executor would be £78 : 15s. 4d., as follows :—

Dividend of £50, being half of year's dividend at the rate of 10 per cent, payable in August 1899, for the half-year to 31st December 1898	£50	0	0
Proportion of dividend at 10 per cent accrued from 31st December 1898 to 15th April 1899 (date of death of liferenter) . .	28	15	4
	£78	15	4

The liferenter's executor would thus receive £78 : 15s. 4d. in place of 5s. 6d., the correct amount. This clearly shows the absurdity which results from applying the Apportionment Act of 1870 at the termination of a liferent and not also when stock is bought. The same reasoning applies to the case of the sale of stock.

Profit from Private Partnerships.

Profits from private partnerships, even where they are paid at regular periods, are not apportionable under the Act; such apportionment is regulated by the Partnership Act, 1890, sec. 42.

Apportionment of Rents under the Land Clauses Act, 1845.

Under this Act, when part of land held under a lease is acquired for any purpose under the Act apportionment takes place. In terms of Section 119 of the Act, "the rent payable in respect of the lands comprised in such lease shall be apportioned between the lands so required and the residue of such lands, and such apportionment may be settled by agreement between the lessor and lessee of such land on the one part and the promoters of the undertaking on the other part; and if such apportionment be not so settled by agreement between the parties, such

apportionment shall be settled by two justices, and after such apportionment the lessee shall, as to all future accruing rent, be liable only as to so much of the rent as shall be so apportioned in respect of the lands not required for the purposes of the special Acts."

Exceptions to Apportionment.

The Apportionment Act of 1870 does not apply in the following cases :—

Where specially excluded by the terms of the deed.
The profits of a private partnership.
Annual sums made payable in policies of assurance.
Dividends or bonuses declared not as ordinary dividends but as capital payments.
Fore-hand rents.
Minister's stipend, so far as the receiver of the stipend is concerned.

Burdens and other Deductions.

Under Section IV. of the Act of 1870, "all just allowances" are deductible from the rents and other sums to be apportioned. In the case of trust estates it is often convenient to show the periods and the corresponding deductions in a separate statement at the end of the account, as follows :—

STATE SHOWING APPORTIONMENT OF BURDENS

Nature of Burden.	Date of Payment.	Period for which Burden applicable.	Number of days from beginning of period to date of death (26th November).	Amount paid.			Chargeable against.					
							Executor.			Heir.		
				£	s.	d.	£	s.	d.	£	s.	d.
Feu duty . .	Nov. 30	Year to Mart.	15	9	10	0	0	7	10	9	2	2
Poor and School Rates . .	Feb. 1	Year to Whit.	195	6	0	0	3	4	1	2	15	11
County Rates .	,, 10	do.	195	4	0	0	2	2	9	1	17	3
Property tax, Sch. (A) . . .	,, 12	Year to 5th April	235	7	0	0	4	10	2	2	9	10
				26	10	0	10	4	10	16	5	2

Property not producing Revenue.

Where property is left not producing revenue, but under instructions to have it realised, and the proceeds of the investment liferented, it is only fair where the realisation is delayed for some years, for the ultimate benefit of the estate, that the liferenter should receive an equivalent for acceding to the delay. If there are no funds out of which the liferenter can be paid, then at all events when the property is realised the liferenter is entitled to receive a share of the proceeds. The amount which the liferenter is entitled to on the realisation is the difference between the sum realised and its value when the liferenter became entitled to receive the revenue, discounted at the rate of interest represented by the annual income which might have been received had the property been realised at once. Thus, supposing a certain property has not yielded any revenue, in the meantime is liferented as from 1st January 1899, and is realised on 1st January 1904 for £1000; then on 1st January 1904 the share falling to the liferenter of the £1000 would be £137: 7s. 10d. (that being the difference between £1000 and the value of that sum five years before, discounted at 3 per cent, £862 : 12s. 2d.) If 3 per cent is the rate of return on investments before deducting income tax, then the rate taken above should be 3 per cent, less the rate of income tax.

Supposing part of the estate left to B, the widow of A, in liferent consisted of a fully-paid insurance policy of £1000 on the life of C. On C's death, ten years after B became a widow, the £1000 would be payable, and on receipt £744 : 1s. 11d. would go to capital, and £255 : 18s. 1d. to the widow, as shown by the following statement:—

Total amount received from insurance company	£1000	0	0
Deduct—			
Value of £1000 ten years ago, discount at 3 per cent	744	1	11
	£255	18	1

Giving the widow the £255 : 18s. 1d. is equivalent to giving her the interest at 3 per cent on the £744 : 1s. 11d.

annually from the date when she entered upon the liferent of the estate.

Care must be taken to distinguish such cases from those securities which should have produced income, but are bad and there is delay or loss in realising them. Thus, if the interest on a bond falls into arrear, and the security has to be realised : when it is realised the full interest duly compounded is due to the liferenter, if there is a sufficient amount realised to pay the interest so compounded, and the original amount of the bond ; but if there has been loss on the realisation of the security, then the rules of equity appear to warrant that the total sum realised should be divided between the fiar and the liferenter in the ratio of the original bond to the annual interest in arrear accumulated at compound interest.

Examples of Apportionment.

£500 capital stock of the National Bank of Scotland, Limited, was sold for £1595 by the trustees of J. Smith, who died on 15th August 1890, and the net proceeds were received on 1st July 1891. Two dividends at the rate of 15 per cent were received on 1st January and 1st July 1891 for the bank's financial year ending 1st November 1890, the amount of dividend on each occasion being £37 : 10s.

To find what proportion of the dividends received and of the net proceeds of £1595 is applicable to revenue. The liferenter is entitled to the proportion of the dividend on £500 at 15 per cent from 15th August 1890 to 1st November 1890. He also is entitled to the dividend at the rate of 15 per cent on £500 from 1st November 1890 to 1st July 1891, as the £500 stock would be earning that dividend during the period. These two amounts are as follows :—

Proportion of dividend on £500 at 15 per cent from 15th August to 1st November 1890, 78 days (£75 × 78 ÷ 365) . .	£16	0	7
Proportion of dividend on £500 at 15 per cent from 1st November 1890 to 1st July 1891 at 15 per cent, 242 days (£75 × 242 ÷ 365)	49	14	6
Total applicable to revenue .	£65	15	1

£65 : 15s. 1d. is the interest at 15 per cent on £500 from 15th August 1890 to 1st July 1891 (78 + 242 = 320 days), as it should be.

A testator died on 30th June 1897, leaving £2000 of National Bank of Scotland stock to be liferented, and the fee given to the Royal Infirmary. The National Bank of Scotland close their books on the 1st November in each year, and the dividend made during the year is payable in January and July following in equal portions. The dividends received would be as follows :—

On 12th July 1897, balance of dividend at 15 per cent for year ending 1st November 1896		£150
On 11th January 1898, first half of dividend at 16 per cent for year ending 1st November 1897 . .	£160	
On 12th July 1898, second half of dividend at 16 per cent for year ending 1st November 1897 .	160	
	——	320

The whole dividend of £150 received on 12th July 1897 would go to capital, being for the period while the testator was alive.

The dividend received on 11th January 1898 being to account of the dividend for year to 1st November 1897, the liferenter is entitled to receive his share for the 124 days from 30th June to 1st November 1897, and similarly with the second portion of the dividend when received. The liferenter would therefore get :—

On 11th January 1898, $\frac{124}{365}$ths of £160 .	£54	7	$1\frac{1}{2}$
On 12th July 1898, do. do. .	54	7	$1\frac{1}{2}$
	£108	14	3

This is the interest on £2000 for 124 days at 16 per cent, as it should be.

The following table shows the particulars necessary for apportionment of dividends of certain companies :—

TABLE SHOWING CAPITAL, DATE OF CLOSING ACCOUNTS, AND DATE WHEN DIVIDENDS PAYABLE OF BANKS, INSURANCE COMPANIES, AND RAILWAY COMPANIES IN SCOTLAND.

Name.	Share.	Paid up.	Paid up Capital.	Accounts close.	Dividends payable.
BANKS.	£	£	£		
Bank of Scotland	150	100	1,325,000	28th February	October previous and April following.
British Linen Bank	Stock	100	1,250,000	15th January	September previous and March following.
Clydesdale Bank, Ltd.	50	10	1,000,000	31st December	February and August following in equal portions.
Commercial Bank of Scotland, Ltd.	100	20	1,000,000	31st October	July previous and January following.
National Bank of Scotland, Ltd.	500	100	1,000,000	1st November	January and July following in equal portions.
North of Scotland and Town and County Bank, Ltd.	20	4	652,000	30th September	May previous and November following.
Royal Bank of Scotland	Stock	100	2,000,000	2nd Sat. October	June previous and December following.
Union Bank of Scotland, Ltd.	50	10	1,000,000	2nd April	May and November following in equal portions.
INSURANCE COS.					
Caledonian Insurance Company	25	5	107,500	31st December	May and November following in equal portions.
City of Glasgow Life Assurance Company	25	2½	60,000	20th January	April and October following in equal portions.
Edinburgh Life Assurance Company	100	20	100,000	31st December	April and October following in equal portions.
Life Association of Scotland	40	8¾	87,500	5th April	Interim dividend in May and balance in November.
National Guarantee and Suretyship Association, Ltd.	20	2	50,000	31st May	Interim dividend in December previous, balance in July.
North British and Mercantile Insurance Co.	25	6¼	687,500	31st December	May and November following in equal portions.
Northern Assurance Company, Ltd.	100	10	300,000	31st December	Interim dividend in Dec., balance in June following.
Scottish Union and National Insurance Company A	20	1	239,145	31st December	June and December following in equal portions.
Scottish Union and National Insurance Company B	10	3¾	60,855	31st December	June and December following in equal portions.
Standard Life Assurance Company	50	12	120,000	15th November	May and Nov. following.
RAILWAYS.					
Caledonian Railway Co.	The particulars of capital of these Companies are constantly changing. The accounts are closed half-yearly, and the dividend then paid is in respect of the half-year, and should be apportioned accordingly.			31st Jan. and 31st July	April and Oct. respectively.
Edinburgh and Bathgate Railway Company				31st Jan. and 31st July	February and August respectively.
Highland Railway Co.				28th Feb. and 31st Aug.	April and October respectively.
Midland Railway Co.				30th June and 31st Dec.	August and February respectively.
North British Railway Company				31st Jan. and 31st July	April and October respectively.

TRUST AND EXECUTRY ACCOUNTS

The preparation of Trust and Executry Accounts affords considerable scope for the ability of an accountant, as in connection with such accounts there are usually intricate questions relating to the interpretation of the deed constituting the trust, and to the apportionment of sums between capital and revenue. The usual form in which these accounts are prepared is that of an Account of Charge and Discharge, although sometimes the ordinary form of Ledger Accounts is used. For the sake of comparison a model set of trust transactions is given, and the accounts are shown as they might be submitted by the trustees :—

I. In the form of an Account Charge and Discharge.
II. In the form of Ledger Accounts.

When Trust Accounts are kept in the Ledger form the fullest information may be at once obtained as to the position of the trust at any particular time, and from these Ledger Accounts the Account of Charge and Discharge may be prepared at the close of each period. The agent or factor in the trust usually keeps an account in his Ledger for the trust, and this Ledger Account practically forms the Account Current of the Trustees' Intromissions. In preparing the Account of Charge and Discharge the Account Current is sometimes submitted as an appendix, as it shows the transactions of the trustees in the order in which they took place, and from it may be ascertained the daily balance due to or by the factor.

The will or trust settlement constituting the trust or executry should be carefully perused, and short notes upon it prepared. The object of preparing these notes is to obviate continual reference to the trust deed itself, and they should show at a glance the provisions of the trust. Upon the terms of the settlement will depend to a large extent the form in which the accounts should be kept. Thus, if the estate has merely to be realised and, after all

the debts and expenses have been paid, the money is to be divided among certain beneficiaries, the accounts will be very simple. If, on the other hand, the estate is to be life-rented, capital and revenue will require to be very carefully distinguished, and the principles of the Apportionment Act, so far as not modified by the trust deed, will require to be given effect to. In preparing the Account of Charge and Discharge, where capital and revenue have to be distinguished, it is sometimes advisable to have an account for the capital and another for the revenue. With only one account the revenue and capital transactions appear under leading headings, and then in the report which usually precedes the account, or in a separate abstract, the capital and revenue are carefully distinguished, and the respective balances shown.

In ordinary Executry or Trust Accounts it is usually best to begin the first account with the inventory of the estate as at the date of death, and to have this as the first item of the charge against the trustees. By this means there is no chance of any of the estate being omitted.

Model Set of Trust Transactions.

The method of keeping Trust Accounts will be best seen from the following example:—

William Slater, Merchant, died on 31st March 1899, leaving a trust disposition and settlement for the following purposes:—

1. Payment of debts and expenses.
2. Payment of a legacy of £1000 to his daughter Jane.
3. His heritable estate to go to his son John.
4. His moveable estate to be liferented by his widow.
5. On his widow's death the moveable estate to go to his daughter Jane.

The following is a copy of the inventory of the estate as prepared shortly after the date of death:—

Inventory of Estate.

I. MOVEABLE ESTATE:—

1. Cash in house		£50 0 0	
2. Household furniture		400 0 0	
3. Value of 400 shares of £50 each, £10 paid, of the Clydesdale Bank, Limited, at $22\frac{5}{8}$		9,050 0 0	
4. Life policy, No. 79,810, with the Lancashire Insurance Company		3,000 0 0	
5. Deposit receipt with the Bank of Scotland, dated 14th October 1898, for	£400 0 0		
Interest to date	3 17 2		
		403 17 2	
6. Rents accrued to date as follows:— Smith Crescent—Proportion of £600 rental to date		226 0 6	
		£13,129 17 8	

II. HERITABLE ESTATE:—

The heritable property consisted of four villas at Smith Crescent, the rental of which amounted to £600; feu-duty, £60. These villas were valued at £9000, which is arrived at to satisfy the requirements of the Inland Revenue, as follows:—

The rental as given in the Valuation Roll was		£600 0 0	
Deduct—			
Feu-duty	£60 0 0		
Landlord's taxes	45 0 0		
Repairs at $7\frac{1}{2}$ per cent on rental	45 0 0		
		150 0 0	
Net annual value		£450 0 0	

Taken at 20 years' purchase the estimated saleable value is £9000.

The following may be taken as the account in the Factor and Law Agent's Ledger, showing his intromissions with the funds of the estate from 31st March 1899, when the testator died, to 10th June 1900, the date of the death of the liferentrix :—

THE TRUSTEES OF THE LATE WILLIAM SLATER

		Cash paid.	Cash received.
1899.			
Apr. 1.	By Cash found in deceased's repositories . . .		£50 0 0
17.	To Funeral expenses paid. .	£30 0 0	
	,, Dr. Robertson, for attendance on deceased on deathbed	10 10 0	
18.	By Amount in life policy, No. 79,810, with the Lancashire Insurance Company		3,000 0 0
19.	To Paid the following accounts—		
	Servants' wages . .	30 0 0	
	James Thomson, Stationer	15 0 6	
	Thomas Paterson, sum in I.O.U. by deceased, dated 1st January 1898	531 5 0	
	James Davie, Wine Merchant	54 10 6	
	David Bennet, Ironmonger	12 2 6	
	John Boyd, Solicitor, business account . .	17 2 6	
	William Monteith, Tailor and Clothier . .	21 0 6	
	Alexander Elliot, Grocer.	30 8 6	
	,, Collector of Inland Revenue, for estate duty at 4 per cent on net value of estate, £12,300, £492 0 0 Interest to date (19 days at 3 per cent) . 0 15 4		
		492 15 4	
20.	,, Legacy paid to Jane Slater, daughter of deceased .	1,000 0 0	
May 13.	By Proceeds of sale of 400 shares of £50 each, £10 paid, of the Clydesdale Bank, Ltd., at 23, less expenses, £45.		9,155 0 0
	Carry forward . .	£2,244 15 4	£12,205 0 0

THE TRUSTEES OF THE LATE WILLIAM SLATER—*Contd.*

		Cash paid.	Cash received.
1899.	Brought forward . .	£2,244 15 4	£12,205 0 0
May 14.	By Uplifted deposit receipt for £400, dated 14th October 1898, with interest to date		405 1 8
15.	,, Received the following half-year's rents of villas at Smith Crescent:—		
	David Watson . .		75 0 0
	William Riddell . .		100 0 0
	Adam Munro . .		75 0 0
	James Jenkinson . .		50 0 0
	To John Slater, son of deceased, proportion of rents due to him as heir to heritable property for period from 31st March to 15th May 1899 . . £73 19 6		
	Less — Proportion of taxes, etc., paid by deceased for period to 15th May 1899 . 10 0 0		
		63 19 6	
	,, Cash, paid loan of £10,300 over Allan Street property at 4 per cent . . .	10,300 0 0	
Nov. 11.	By Interest for half-year to date on bond for £10,300 at 4 per cent over Allan Street property, less tax, £6 : 17s. 4d. . . .		199 2 8
12.	To Liferentrix, paid her to account	150 0 0	
1900.			
May 15.	By Interest for half-year to date on bond for £10,300 at 4 per cent over Allan Street property, less tax, £6 : 17s. 4d. . . .		199 2 8
16.	To Liferentrix, paid her to account	200 0 0	
June 10.	,, Commission to factor . .	50 0 0	
	,, Business account and outlays by law agent, as taxed	75 3 6	
	,, Miscellaneous expenses .	10 0 0	
	,, Balance in hands of factor .	214 8 8	
		£13,308 7 0	£13,308 7 0

ACCOUNT OF CHARGE AND DISCHARGE OF THE INTROMIS

From 31st March 1899 (date of death of testator)

CHARGE

I. *On account of Capital.*

1. ESTATE AS GIVEN UP IN INVENTORY:—

Amount in Inventory.						
			(1) Cash in house		£50	0 0
			(2) Household furniture		400	0 0
			(3) Value of 400 shares of £50 each, of which £10 is paid, of the Clydesdale Bank, Ltd., at 22⅝		9,050	0 0
			(4) Life policy, No. 79,810, with the Lancashire Insurance Company		3,000	0 0
			(5) Deposit receipt with the Bank of Scotland, dated 14th October 1898, for £400 0 0			
			Interest to date of death 3 17 2		403	17 2
			(6) Rents accrued— Rents of villas at Smith Crescent, proportion of yearly rental of £600 to date of death		226	0 6
					£13,129	17 8

2. HERITABLE ESTATE:—

		Four villas at Smith Crescent, valued for estate duty purposes at	£9000	0 0	
		Note.—In terms of the trust disposition this property has been conveyed by the trustees to John Slater, Esq., son of the truster.			

3. FUNDS AND ESTATE REALISED:—

Amount in Inventory.							
			1899.				
£50	0	0	Apr. 1. Cash found in deceased's repositories		£50	0 0	
3,000	0	0	18. Amount in life policy, No. 79,810, with the Lancashire Insurance Company		3,000	0 0	
9,050	0	0	May 13. Proceeds of sale of 400 shares of Clydesdale Bank, Ltd., at 23, less expenses, £45		9,155	0 0	
403	17	2	14. Uplifted deposit receipt for £400, dated 14th October 1898, with interest to date		405	1 8	
226	0	6	15. Proportion of half-year's rents of £300 to 31st March 1899		226	0 6	
					£12,836	2 2	
			Deduct applicable to Revenue— Proportion of dividend on Clydesdale Bank shares, held from 31st March to 13th May 1899, included in selling price	£47 2 6			
			Interest on deposit receipt for £400 from 31st March to 14th May 1899	1 4 6	48	7 0	
					£12,787	15 2	
£12,729	17	8	*Deduct*— Amount in inventory		12,729	17 8	
			Gain on realisation				57 17 6
				Carry forward			£13,187 15 2

SIONS OF THE TRUSTEES OF THE LATE WILLIAM SLATER, Esq. to 10th June 1900 (date of death of liferentrix).

DISCHARGE

I. *Payments affecting Capital.*

1. DEATHBED AND FUNERAL EXPENSES:—			
1899.			
Apr. 17. Paid funeral expenses			£30 0 0
,, Dr. Robertson, for attendance on deceased on deathbed			10 10 0
			£40 10 0
2. DEBTS DUE BY DECEASED PAID:—			
1899.			
Apr. 19. Paid servants' wages	£30 0 0		
,, James Thomson, Stationer	15 0 6		
,, Thomas Paterson, sum in I.O.U. by deceased, dated 1st January 1898	531 5 0		
,, James Davie, Wine Merchant	54 10 6		
,, David Bennet, Ironmonger	12 2 6		
,, John Boyd, Solicitor, business account	17 2 6		
,, William Monteith, Tailor and Clothier	21 0 6		
,, Alexander Elliot, Grocer	30 8 6		
			711 10 0
3. DUTY PAID TO THE CROWN:—			
1899.			
Apr. 19. Paid collector of Inland Revenue estate duty at 4 per cent on net value of estate, £12,300			492 0 0
4. LEGACY PAID:—			
1899.			
Apr. 20. Paid legacy to Jane Slater, daughter of deceased			1,000 0 0
5. EXPENSES OF REALISATION AND ADMINISTRATION chargeable to Capital:—			
1899.			
June 10. Commission to factor	£50 0 0		
Business account and outlays by law agents, as taxed	75 3 6		
Miscellaneous expenses	10 0 0		
	£135 3 6		
Deduct—Proportion of above chargeable to Revenue	15 3 6		
			120 0 0
			£2,364 0 0

II. *Investments made.*

1899.		
May 15. Paid sum in loan by trustees over Allan Street property at 4 per cent, entered in Discharge, Branch IV.	£10,300 0 0	
Carry forward		£2,364 0 0

CHARGE—*continued.*

I. *On account of Capital—continued.*						
Brought forward . . .						£13,187 15 2
4. RENTS RECEIVED AND TAXES RECOVERED FROM HEIR:—						
1899.						
May 15. Received the following half-year's rents of villas at Smith Crescent:—						
David Watson .			£75	0 0		
William Riddle .			100	0 0		
Adam Munro .			75	0 0		
James Jenkinson .			50	0 0		
			£300	0 0		
Deduct—Proportion of above applicable to Capital, carried to Branch I. (3) of Charge			226	0 6		
			£73	19 6		
Paid to John Slater, son of deceased and heir to property, the above proportion falling to him as heir . . .	£73	19 6				
Less — Proportion of landlord's taxes paid by deceased for the period from 31st March to 15th May 1899	10	0 0	63	19 6	10	0 0
					£13,197	15 2
II. *On account of Revenue.*						
1899.						
Nov. 11. Received half-year's interest on bond for £10,300 at 4 per cent, less tax, £6 : 17s. 4d. .			£199	2 8		
1900.						
May 15. Received do. do.			199	2 8		
			£398	5 4		
Add—Proportion of dividend on Clydesdale Bank shares, held from 31st March to 13th May 1899, effeiring to revenue as per Branch I. (3) of Charge .	£47	2 6				
Interest on deposit receipt from 31st March to 14th May 1899 per Branch I. (3) of Charge	1	4 6	48	7 0	446	12 4
SUM OF THE CHARGE . . .					£13,644	7 6

DISCHARGE—*continued.*

Brought forward . .			£2,364 0 0
III. *Payments affecting Revenue.*			
1. PAYMENTS TO LIFERENTRIX :—			
1899. Nov. 12. Paid to account . . .		£150 0 0	
1900. May 16. do. . . .		200 0 0	
		£350 0 0	
2. EXPENSES OF MANAGEMENT AND MISCELLANEOUS CHARGES :—			
1899.			
Apr. 19. Paid collector of Inland Revenue interest on estate duty, 19 days at 3 per cent . . .	£0 15 4		
Proportion of expenses of administration chargeable against Revenue, per Branch I. (5) of Discharge	15 3 6	15 18 10	365 18 10
IV. *Estate as at* 10*th June* 1900.			
Bond for £10,300 over Allan Street property at 4 per cent		£10,300 0 0	
Household furniture		400 0 0	
Cash balance in hands of factor . . .		214 8 8	10,914 8 8
SUM OF THE DISCHARGE . . Equal to that of Charge.			£13,644 7 6

ABSTRACT OF ACCOUNT CHARGE AND DISCHARGE OF THE INTROMISSIONS OF THE TRUSTEES OF THE LATE WILLIAM SLATER, ESQ.

From 31st March 1899 (date of death of testator) to 10th June 1900 (date of death of liferentrix).

CHARGE

I. *On account of Capital:—*		
1. ESTATE AS GIVEN UP IN INVENTORY		£13,129 17 8
2. HERITABLE ESTATE	£9000 0 0	
Conveyed to John Slater, Esq.		
3. GAIN ON REALISATION OF FUNDS AND ESTATE		57 17 6
4. TAXES RECOVERED FROM HEIR		10 0 0
		£13,197 15 2
II. *On account of Revenue*		446 12 4
SUM OF THE CHARGE		£13,644 7 6

DISCHARGE

I. *On account of Capital:—*			
1. DEATHBED AND FUNERAL EXPENSES			£40 10 0
2. DEBTS DUE BY DECEASED			711 10 0
3. DUTY PAID			492 0 0
4. LEGACY PAID			1,000 0 0
5. EXPENSES			120 0 0
			£2,364 0 0
II. *Investments made*	£10,300 0 0		
III. *Payments affecting Revenue:—*			
1. PAYMENTS TO LIFERENTRIX	£350 0 0		
2. EXPENSES	15 18 10		365 18 10
IV. *Estate as at 10th June* 1900			10,914 8 8
SUM OF THE DISCHARGE			£13,644 7 6
Equal to that of Charge.			

The position of affairs at 10th June 1900 was therefore as follows:—

I. As Regards Capital

Receipts on account of Capital		£13,197 15 2
Payments on account of Capital		2,364 0 0
Capital of the trust estate . . .		£10,833 15 2

II. As Regards Revenue

Receipts on account of Revenue . .	£446 12 4	
Payments affecting Revenue . . .	365 18 10	
Balance of Revenue due to representatives of liferentrix		80 13 6
Total estate at 10th June 1900 . .		£10,914 8 8

The liferentrix having died on 10th June 1900, the capital of the trust estate now belongs to the testator's daughter Jane, and accordingly, after settlement of any Government duties payable and the expenses of winding up the estate, the whole capital funds could be handed over to her. The balance of Revenue, amounting to £80 : 13s. 6d., belongs to the representatives of the liferentrix, and should be handed over to them, together with the interest on the bond of £10,300 from 15th May to 10th June 1900, which would be received on 11th November 1900, less any expenses chargeable against Revenue. In the event of the liferentrix leaving a will in favour of her daughter Jane, it would be unnecessary, of course, to make any apportionment, and the whole funds could be handed over to her at once.

The trustees' intromissions, recorded in the form of Ledger Accounts, are now submitted, together with Balance Sheet as at 10th June 1900. The Cash Account is not shown, as that has already been given in the Account Current so far as the entries are concerned. To complete the following Ledger Accounts, a Cash Account, or a Cash Book with the money columns on opposite sides to those shown on page 178, would be necessary.

WILLIAM SLATER'S TRUST

Ledger Accounts

Capital Account.

1899.					1899.			
Mar. 31.	To Debts due at decease, per account .	£711	10	0	Mar. 31. By Cash in house .	£50	0	0
,,	Deathbed and funeral expenses . .	40	10	0	,, Household furniture . .	400	0	0
		£752	0	0	,, Clydesdale Bank shares . .	9,050	0	0
,,	Balance carried down . .	12,377	17	8	,, Amount in life policy . .	3,000	0	0
					,, Deposit receipt and interest .	403	17	2
					,, Rents . .	226	0	6
		£13,129	17	8		£13,129	17	8
1899.					1899.			
Apr. 19.	To Cash, estate duty . .	£492	0	0	Apr. 1. By Balance brought down . .	£12,377	17	8
1900.					1900.			
June 10.	,, Legacy to Jane Slater . .	1,000	0	0	June 10. ,, Rents and taxes recovered .	10	0	0
,,	Expenses . .	120	0	0	,, Clydesdale Bank shares, gain on realisation .	57	17	6
,,	Balance of capital at this date	10,833	15	2				
		£12,445	15	2		£12,445	15	2
					1900.			
					June 10. By Balance . .	£10,833	15	2

Cash in House.

1899.					1899.			
Mar. 31.	To Capital, for amount of cash found in deceased's repositories .	£50	0	0	Apr. 1. By Cash Account .	£50	0	0
		£50	0	0		£50	0	0

Household Furniture.

1899.					1900.			
Mar. 31.	To Capital . .	£400	0	0	June 10. By Balance . .	£400	0	0
1900.								
June 10.	To Balance . .	£400	0	0				

Clydesdale Bank Shares.

1899.			1899.		
Mar. 31. To Capital, for 400 shares £50 each, of which £10 is paid, at 22§ . .	£9050 0 0		May 13. By Proceeds of sale of 400 shares of £50 each, of which £10 is paid, at 23, less expenses, £45	£9155 0 0	
May 13. ,, Liferentrix, for proportion of dividend from 31st March to 13th May 1899 included in selling price .	47 2 6				
1900. June 10. ,, Capital, gain on realisation .	57 17 6				
	£9155 0 0			£9155 0 0	

Life Policy.

1899.			1899.		
Mar. 31. To Capital, amount in policy No. 79,810 . .	£3000 0 0		Apr. 18. By Cash, from Lancashire Insurance Company	£3000 0 0	

Deposit Receipt.

1899.			1899.		
Mar. 31. To Capital, amount in deposit receipt, dated 14th October 1898, with interest to date, £3 : 17s. 2d. .	£403 17 2		May 14. By Cash, being amount in deposit receipt uplifted, with interest to date . .	£405 1 8	
May 14. ,, Liferentrix, for interest on deposit receipt from 31st March to date	1 4 6				
	£405 1 8			£405 1 8	

Rents and Taxes recovered.

1899.				1899.			
Mar. 31.	To Capital, proportion of yearly rental of £600 to date . .	£226	0 6	May 15.	By Cash, for the following half-year's rents:—		
May 15.	,, Cash, John Slater, proportion of half-year's rents due to him as heir for period from 31st March to 15th May 1899 . .	73	19 6		David Watson .	£75	0 0
					William Riddell	100	0 0
					Adam Munro .	75	0 0
					James Jenkinson	50	0 0
						£300	0 0
	,, Capital . .	10	0 0		,, Cash, John Slater, for proportion of taxes paid by deceased to 15th May 1899	10	0 0
		£310	0 0			£310	0 0

Debts due by Deceased.

1899.				1899.			
Apr. 19.	To Cash, for the following accounts:—			Mar. 31.	By Capital, for the following accounts:—		
	Servants' wages	£30	0 0		Servants' wages	£30	0 0
	James Thomson, Stationer .	15	0 6		James Thomson, Stationer .	15	0 6
	Thomas Paterson, sum in I.O.U. by deceased, dated 1st Jan. 1898	531	5 0		Thomas Paterson, sum in I.O.U. by deceased, dated 1st Jan. 1898	531	5 0
	James Davie, Wine Merchant	54	10 6		James Davie, Wine Merchant	54	10 6
	David Bennet, Ironmonger .	12	2 6		David Bennet, Ironmonger .	12	2 6
	John Boyd, Solicitor .	17	2 6		John Boyd, Solicitor .	17	2 6
	William Monteith, Tailor and Clothier .	21	0 6		William Monteith, Tailor and Clothier .	21	0 6
	Alexander Elliot, Grocer . .	30	8 6		Alexander Elliot, Grocer . .	30	8 6
		£711	10 0			£711	10 0

Deathbed and Funeral Expenses.

1899.				1899.			
Apr. 17.	To Cash, funeral expenses . .	£30	0 0	Mar. 31.	By Capital, funeral expenses . .	£30	0 0
,,	Cash, Dr. Robertson, for attendance on deceased on deathbed .	10	10 0	,,	Capital, Dr. Robertson, for attendance on deceased on deathbed .	10	10 0
		£40	10 0			£40	10 0

Legacy.

1899.				1900.			
Apr. 20.	To Cash, legacy to Jane Slater .	£1000	0 0	June 10.	By Capital . .	£1000	0 0

Bond over Allan Street Property.

1899.				1900.			
May 15.	To Cash, amount in loan by trustees over Allan Street property at 4 per cent.	£10,300	0 0	June 10.	By Balance . .	£10,300	0 0
1900.							
June. 10.	To Balance . .	£10,300	0 0				

Expenses of Realisation and Administration.

1900.				1900.			
June 10.	To Commission to factor . .	£50	0 0	June 10.	By Capital, for share of total expenses . .	£120	0 0
,,	Business account and outlays by law agent, as taxed . .	75	3 6	,,	Liferentrix, share of expenses .	15	3 6
,,	Miscellaneous expenses . .	10	0 0				
		£135	3 6			£135	3 6

Liferentrix.

1899.					1899.			
Apr. 19.	To Cash, interest on estate duty .	£0	15	4	May 13.	By Clydesdale Bank shares, for proportion of dividend from 31st March to 13th May 1899, included in selling price .	£47	2	6
Nov. 11.	,, Cash to account .	150	0	0	14.	,, Deposit Receipt Account, interest from 31st March to 14th May 1899 .	1	4	6
1900.					Nov. 11.	,, Cash, half-year's interest on bond over Allan Street property at 4 per cent, less tax, £6 : 17s. 4d. .	199	2	8
May 16.	,, do. .	200	0	0	1900.				
June 10.	,, Expenses of realisation and administration	15	3	6	May 15.	,, do. do.	199	2	8
	,, Balance due liferentrix at this date .	80	13	6					
		£446	12	4			£446	12	4
					1900.				
					June 10.	By Balance . .	£80	13	6

WILLIAM SLATER'S TRUST

BALANCE SHEET OF THE TRUST as at 10th June 1900.

Liabilities.				*Assets.*			
CAPITAL OF THE TRUST .	£10,833	15	2	BOND OVER ALLAN STREET PROPERTY AT 4 PER CENT	£10,300	0	0
DUE TO LIFERENTRIX . .	80	13	6	HOUSEHOLD FURNITURE .	400	0	0
				CASH IN HANDS OF FACTOR.	214	8	8
	£10,914	8	8		£10,914	8	8

Exercises.

1. Prepare Executorship Accounts from the following particulars:—

W. Smith died on 28th November 1899, leaving a trust disposition and settlement, which directed that after payment

of all his just and lawful debts, the following legacies should be made, appointing his executor residuary legatee.

To his widow, that part of the heritable property consisting of his residence and the household effects therein, and the income from £5000 to be invested.

To his son and daughter, £4000 each, and half share each of the above £5000 at the widow's death.

The inventory made up for estate duty purposes was as follows:—

I. MOVEABLE ESTATE:—

Cash in house					£50	0 0
Cash in Private Bank Account					240	0 0
Household effects as valued					700	0 0
Business assets—						
Stock	£6000	0	0			
Book debts	4000	0	0			
Cash in hand	400	0	0			
Balance at bank	2000	0	0			
Fixtures, fittings, and trade utensils	1000	0	0			
					13,400	0 0
					£14,390	0 0

II. HERITABLE ESTATE:—

The heritable estate consisted of—		
The residence of deceased, valued at	£3000	0 0
Five houses, valued at	3000	0 0
(To be sold according to will.)		
	£6000	0 0

The cash transactions from 28th November 1899 (date of death of testator) to 30th June 1900 (date of closing of accounts) were as follows:—

		Cash paid.			Cash received.		
1899.		£	s.	d.	£	s.	d.
Nov. 30.	By Cash found in deceased's repositories				50	0	0
	,, Cash uplifted from Private Bank Account				240	0	0
Dec. 20.	To Funeral expenses	30	0	0			
	,, Private debts of deceased:—						
	James Anderson, Clothier	50	0	0			
	George Boak, Grocer	10	0	0			
	David Ramsay, Ironmonger	15	0	0			
	John Lees, Merchant	5	0	0			
1900.							
May 4.	By Sum received for business assets taken over by Mr. John Elder				13,500	0	0
	To Business debts of deceased paid:—						
	Messrs. Mitchell & Welsh	1,000	0	0			
	Messrs. Munro & Fraser	100	0	0			
	Messrs. Robertson & Davie	500	0	0			
15.	,, Legacies to son and daughter, £4000 each	8,000	0	0			
	By Price of heritable property, consisting of five houses, sold per directions of will				3,000	0	0
	,, Rents of five houses for half-year to date, less taxes				200	0	0
	To Amount invested for liferent of widow in bond over heritable property at 4 per cent	5,000	0	0			
June 30.	,, Collector of Inland Revenue for estate duty at 4 per cent on net value of estate, £12,500 . . £500 0 0						
	Interest on £500 from 28th Nov. 1899 to 30th June 1900 (214 days at 3 per cent) . . 8 15 11						
		508	15	11			
	,, Law expenses	71	4	1			
	,, Balance remaining in hands of executor after payment of all debts and legacies	1,700	0	0			
		16,990	0	0	16,990	0	0

2. John Roberts dies on 10th January, bequeathing his entire property, after payment of all debts and funeral expenses, to the following beneficiaries, viz. one-fifth to John Roberts, jr., one-fifth to George Roberts, one-fifth to William Roberts, three-tenths to Mary Roberts, and one-tenth to Frank Smith.

The inventory lodged by his executors was as follows :—

Stocks and shares	£4000	0	0
Mortgages	6000	0	0
Furniture and wearing apparel	100	0	0
Cash in bank	40	0	0

There are two executors, and their transactions are as follows :—

CASH RECEIPTS :—

Stocks and shares sold	£3,341	0	0
Mortgages realised	4,656	0	0
Furniture and wearing apparel sold	50	0	0
Dividends collected on stocks and shares	1,800	0	0
Interest collected on mortgages	2,400	0	0
Interest received on deposits in bank	100	0	0
Heritable estate sold	1,000	0	0
Rents collected	720	0	0
Cash in bank at decease, uplifted	40	0	0
	£14,107	0	0

CASH DISBURSEMENTS :—

Funeral expenses	£30	0	0
Expenses of obtaining confirmation	200	0	0
General legal expenses	400	0	0
Repairs to heritable property	220	0	0
Stationery, postage, etc.	10	0	0
Accountant's fee	80	0	0
Debts of deceased	500	0	0
Taxes	800	0	0
Insurance	10	0	0
John Roberts, Jr., to account of legacy	2,200	0	0
George Roberts, to account of legacy	2,500	0	0
William Roberts, to account of legacy	2,220	0	0
Mary Roberts, to account of legacy	3,100	0	0
Frank Smith, to account of legacy	960	0	0
	£13,230	0	0

The inventory at the date on which they wish to account is as follows :—

Stocks and shares	£1000	0	0
Mortgages	1280	0	0
Cash in bank	877	0	0

Make up summary statement of the Executors' Accounts showing the balance due each legatee.

PARTNERSHIP

PARTNERSHIP IS THE RELATION WHICH SUBSISTS BETWEEN PERSONS CARRYING ON A BUSINESS IN COMMON WITH A VIEW OF PROFIT.—PARTNERSHIP ACT, 1890, SEC. 1.

By the Companies Act, 1862, no partnership consisting of more than twenty persons may be formed for the purpose of carrying on any business without being registered as a company under that Act, unless it is incorporated under some other Act. In the case of a banking company the partnership may not consist of more than ten persons without being so registered. A partnership limited to a particular adventure or speculation is distinguished as a joint adventure.

A partnership may be formed without any deed, but it is better to have it constituted by a formal contract of co-partnery, setting forth the agreement of the parties as to the business to be conducted, the duration of the partnership, the contribution of the capital, the division of the profits and losses, the general management, and the dissolution of the partnership.

Under the Partnership Act of 1890 the advance of money in the form of a loan to a person engaged in business under a contract in writing with such person that the lender is to receive a rate of interest varying with the profits, or is to receive a share of the profits arising from carrying on the business, does not of itself constitute the lender a partner, but in the event of the bankruptcy of the trader the lender of the money is not entitled to recover the money lent or the interest or profits due to him until the claims of the other onerous creditors have been satisfied.

A deed of co-partnery, after stating the name of the firm and the business which it is proposed to conduct, should give the date of the commencement and the duration of the partnership. The capital which is to be originally

contributed by each partner or to be afterwards put into the business should also be stated. Sometimes it is desirable that either partner in respect of devoting his whole time to the business should receive a salary before the divisible profits are ascertained, so that in the event of there being no profits such partner still draws his salary. Interest on the capital employed should also be charged before arriving at the divisible profits. Even when the capital of a partnership at starting is the same, during the progress of the partnership, in consequence of circumstances arising, the proportions of the partners' capital change, and to make a fair allowance for this it is very desirable that there should be a stipulation in the deed of co-partnery that interest is to be allowed at the rate of say 4 or 5 per cent upon all sums at the credit of the partners, and charged on all sums at their debit. The effect of this is that the partners receive interest in respect of the money they have in the business. The proportion in which the profits and losses of the business are to be allocated should be strictly defined. To prevent a partner drawing out too much capital, and thereby endangering the stability of the business, some limitation is usually placed upon the rights of partners to withdraw capital. Provision should be made in all contracts of co-partnery for a periodical Balance Sheet of the firm being prepared and docquetted by the partners as approved of within a specified time. Provision should be made for the dissolution of the firm, and for any disputes which may arise in the course of the co-partnery or at its termination being referred to arbiters, who should be named in the deed. If the arbiter is not named in the deed the Court may make the appointment on the application of any partner (Arbitration (Scotland) Act, 1894, secs. 2 and 3).

Goodwill in Partnership.

Sometimes when a new partner is assumed in an established firm it is agreed that he shall, in respect of being taken into the business, pay a certain sum in respect of goodwill. This sum may be treated in various ways. The cash he pays may be paid direct to the original owner or owners of the business, or the sum may be paid in cash

into the business, and credited to the Capital Account of the original owner or owners. By this treatment the partners of the original firm get the full benefit of the payment made in respect of goodwill. On the other hand, the new partner may pay the sum into the business, and such sum may be placed to the credit of the Goodwill Account, thereby writing down the amount at which goodwill then stands on the firm's books. In this case the original partners merely benefit in the proportion in which they are in future to share the profits, and the incoming partner benefits to the extent that he is to share the profits, as the amount will eventually be divided up in some form or other. Thus, if £600 is paid by B for the goodwill of a business, and that sum is handed in cash to A, or on being paid into the business is placed to A's credit in the partnership accounts, then A benefits to the extent of £600; but if the sum is placed to the credit of Goodwill Account, and A is entitled to two-thirds of the profits, then he only benefits to the extent of £400, so that it would be quite the same thing if B gave A £400 in cash, except, of course, that the business would not have the benefit of the additional capital.

When a partner is taken into a business it is of the greatest importance that a correct Balance Sheet is prepared as the basis on which he is assumed. Sometimes a Balance Sheet as at the date of the commencement of the partnership is appended to the deed of co-partnery. Sometimes also the old partners guarantee the assets, and in the event of them not realising their book value the loss is borne by the original partners.

Not only at the beginning, but also at the end of a partnership, it is important that the basis should be a correct Balance Sheet of the concern.

When there is a provision that after a certain date the division of profits is to be altered, one partner receiving a larger ratio and the other a correspondingly smaller ratio, it is essential that great care should be taken to see that the Balance Sheet of the firm as at the date when the alteration takes place is an exact one. Thus in a partner-

ship where the junior partner is entitled to receive one-third of the profits for the first three years, but is afterwards entitled to receive one-half, at the end of the third year if any of the assets of the firm are omitted and are included in the fourth year's account, the result would be that the junior partner would receive one-half of these omitted assets, whereas he is only entitled to receive one-third. On the other hand, if any liability were omitted the junior partner would suffer, because he would be charged with one-half of such omitted liability, whereas his proper proportion is only one-third.

Under the Limited Partnerships Act, 1907, a firm may consist of one or more general partners liable for the whole of the firm's debts and one or more limited partners whose liability is limited to the sums which they are registered as liable to contribute.

INTEREST ON THE CAPITAL ACCOUNTS OF PARTNERS

Where partners contribute the capital and take their drawings exactly in the same proportion as they share the profits, there is no necessity for making any provision for calculating interest upon their Capital Accounts. But such a state of matters very seldom exists, and as a rule it is most desirable that with the view of taking into account the capital of each partner which contributes to the profits of the business, interest should be allowed upon each partner's capital and charged upon his drawings. Each partner thus obtains, irrespective of his share of the profits and prior to the divisible profits being ascertained, interest upon the money he has invested in the business, as if it were invested in a savings bank.

The rate of interest usually taken is 5 per cent, and in most contracts of co-partnery it is most desirable that there should be a stipulation that interest at this rate is to be allowed upon all the capital invested in the business, and charged upon the capital withdrawn. Where the interest actually earned upon the capital of the business is at the rate of 5 per cent, the result of this arrangement is absolutely fair under all circumstances, but it is interesting to investigate the effect of charging interest where the rate

actually earned is higher or lower. The following is given as an illustration.

Assume that in a business £700 of profit is earned, and that interest is charged and allowed at the rate of 5 per cent on the partners' capital, and that the capital at the beginning of the year was as follows:—

W. Clay	£1000
T. Watt	600,

and that these amounts are not altered during the year. The provision in regard to profit is that W. Clay gets two-thirds and T. Watt one-third. The Profit and Loss Appropriation Account and the Capital Accounts would be as follows:—

Profit and Loss Appropriation Account.

Dec. 31.	To Partners, for interest on their capital:—				Dec. 31.	By Profit for year.	£700	0 0
	W. Clay	£50	0	0				
	T. Watt	30	0	0				
		£80	0	0				
	,, Partners, for share of profit:—							
	W. Clay £413 6 8							
	T. Watt 206 13 4							
		620	0	0				
		£700	0	0			£700	0 0

W. Clay, Capital Account.

Dec. 31.	To Balance	£1463	6	8	Jan. 1.	By Balance	£1000	0 0
					Dec. 31.	,, Profit and Loss (interest)	50	0 0
						,, Profit and Loss	413	6 8
		£1463	6	8			£1463	6 8

T. Watt, Capital Account.

Dec. 31.	To Balance	£836	13	4	Jan. 1.	By Balance	£600	0 0
					Dec. 31.	,, Profit and Loss (interest)	30	0 0
						,, Profit and Loss	206	13 4
		£836	13	4			£836	13 4

If any additional money invested in the business would have resulted in an additional gain equivalent to 5 per cent on the amount so invested, it is evident that the partner who provided this sum would get the whole additional profit, and this is as it should be. Suppose, however, that any additional capital paid into the business would have resulted in an additional profit equivalent to 10 per cent on the capital so put in. If W. Clay pay £1000 additional into the business at 1st January, the additional profit would be £100, and the Profit and Loss Appropriation Account and partners' Capital Accounts would be as follows:—

Profit and Loss Appropriation Account.

Dec. 31.	To Partners, for interest on their capital:—				Dec. 31.	By Profit for year .	£800	0 0
	W. Clay . .	£100	0 0					
	T. Watt . . .	30	0 0					
		£130	0 0					
	,, Partners, for share of profit:—							
	W. Clay £446 13 4							
	T. Watt 223 6 8							
		670	0 0					
		£800	0 0				£800	0 0

W. Clay, Capital Account.

Dec. 31.	To Balance . .	£2546	13 4	Jan.	1.	By Balance . . .	£2000	0 0
				Dec.	31.	,, Profit and Loss (interest) . .	100	0 0
						,, Profit and Loss .	446	13 4
		£2546	13 4				£2546	13 4

T. Watt, Capital Account.

Dec. 31.	To Balance . . .	£853	6 8	Jan.	1.	By Balance . . .	£600	0 0
				Dec.	31.	,, Profit and Loss (interest) . .	30	0 0
						,, Profit and Loss .	223	6 8
		£853	6 8				£853	6 8

Of the additional profit of £100 due to the extra capital put into the business by W. Clay, he gets £83 : 6s. 8d., equivalent to $8\frac{1}{3}$ per cent on the additional capital; and the balance, £16 : 13s. 4d., goes to T. Watt. It therefore pays W. Clay to put the £1000 into the business, unless he can earn a larger rate than $8\frac{1}{3}$ per cent elsewhere.

On the other hand, if it is assumed that only 1 per cent is made by the firm on the additional capital of £1000 paid in by W. Clay, then the Profit and Loss Appropriation Account and partners' accounts would be as follows:—

Profit and Loss Appropriation Account.

Dec. 31.	To Partners, for interest on their capital :—				Dec. 31.	By Profit for year .	£710 0 0
	W. Clay . .	£100	0	0			
	T. Watt. . .	30	0	0			
		£130	0	0			
	,, Partners, for share of profit :—						
	W. Clay £386 13 4						
	T. Watt 193 6 8						
		580	0	0			
		£710	0	0			£710 0 0

W. Clay, Capital Account.

Dec. 31.	To Balance . .	£2486	13	4	Jan. 1.	By Balance . . .	£2000	0 0
					Dec. 31.	,, Profit and Loss (interest) . .	100	0 0
						,, Profit and Loss .	386	13 4
		£2486	13	4			£2486	13 4

T. Watt, Capital Account.

Dec. 31.	To Balance . . .	£823	6	8	Jan. 1.	By Balance . . .	£600	0 0
					Dec. 31.	,, Profit and Loss (interest) . .	30	0 0
						,, Profit and Loss .	193	6 8
		£823	6	8			£823	6 8

W. Clay gets £23 : 6s. 8d. of additional profit, which is equivalent to $2\frac{1}{3}$ per cent on the additional capital he has put into the business. T. Watt, however, gets £13 : 6s. 8d. less profit, so that he loses by the additional capital being put in. It pays W. Clay to invest his money in the business so long as he is unable to get a greater rate than $2\frac{1}{3}$ per cent elsewhere.

Interest to be allowed on the Excess and charged on the Deficiency of the Capital of each Partner beyond or under a certain fixed Sum.

Deeds of co-partnery very often contain provisions which it is exceedingly difficult to interpret, and it is frequently desirable that the partners should sign an additional agreement explaining what the intention of the stipulations in the deed of co-partnery exactly is. When there is a provision such as the above in a deed of co-partnery, the simplest way of giving effect to the provision is to calculate interest on each partner's account as it stands, including his drawings, and when the total interest for the period is thus ascertained to deduct from it the interest on the stipulated sum for the period. Thus, suppose W. Hay and R. White are in partnership under the firm of Hay & White, and that the deed of co-partnery stipulates that interest at 5 per cent is to be allowed on the excess and charged on the deficiency of the capital beyond or under £1000 in the case of W. Hay and £800 in the case of R. White, and that the profits thereafter have to be divided in the proportion of two-thirds to W. Hay and one-third to R. White. The working-out of the partners' accounts and the Profit and Loss Account, giving effect to these stipulations, would be as follows :—

W. Hay, Capital Account.

		Interest to 31st Dec.								Interest to 31st Dec.					
June 30.	To Cash	£5	0	0	£200	0	0	Jan. 1.	By Balance	£75	0	0	£1500	0	0
Dec. 31.	,, Balance				1915	16	8	Dec. 31.	,, Interest				20	0	0
									,, Profit				595	16	8
					£2115	16	8						£2115	16	8

R. White, Capital Account.

		Interest to 31st Dec.								Interest to 31st Dec.					
June 30.	To Cash	£3	15	0	£150	0	0	Jan. 1.	By Balance	£30	0	0	£600	0	0
Dec. 31.	,, Interest				13	15	0	Dec. 31.	,, Profit				297	18	4
	,, Balance				734	3	4								
					£897	18	4						£897	18	4

Profit and Loss Appropriation Account.

Dec. 31.	To W. Hay, Capital Account, for interest :— Interest on account for year				£70	0	0	Dec. 31.	By Profit earned for year				£900	0	0
	Deduct—								,, R. White, Capital Account, for interest :— Interest on £800	£40	0	0			
	,, Interest on £1000				50	0	0		*Deduct*— Interest on his account	26	5	0			
					£20	0	0						13	15	0
	,, Partners' accounts, for share of net profit :— W. Hay, two-thirds	£595	16	8											
	R. White, one-third	297	18	4											
					893	15	0								
					£913	15	0						£913	15	0

Interest to be allowed on the Excess and charged on the Deficiency of the Capital of each Partner beyond or under a certain fixed Ratio.

When there is such a stipulation in a deed of co-partnery, interest should be calculated on the partners' individual accounts, and the sum of this interest is the

total interest on the capital, and the proportion of each partner may thus be ascertained. If the actual interest on any partner's account exceed the amount brought out by this proportion, he should be credited with the difference, but if the actual interest on any partner's account is less than that brought out by the proportion his account should be debited with the difference. Thus, suppose that in the previous illustration the stipulation in the deed of co-partnery was that the capital was to be provided in the proportion of two-thirds by W. Hay and one-third by R. White, and that interest was to be allowed on the excess and charged on the deficiency of the capital of each partner beyond or under this ratio.

The total interest on W. Hay's account is £70 and on R. White's £26 : 5s., so that the total interest on the capital of the firm is £96 : 5s. The portion of this effeiring to W. Hay is two-thirds, or £64 : 3s. 4d. As his account shows £70, he must be credited with £5 : 16s. 8d. The portion effeiring to R. White is £32 : 1s. 8d., and as the interest on his account is only £26 : 5s., he must be debited with £5 : 16s. 8d.

Giving effect to these entries, the Capital and Profit and Loss Accounts would be as follows :—

W. Hay, Capital Account.

		Interest to 31st Dec.						Interest to 31st Dec.					
June 30.	To Cash .	£5	0	0	£200	0	0	Jan. 1. By Balance	£75	0	0	£1500	0	0
Dec. 31.	,, Balance . .				1905	16	8	Dec. 31. ,, Interest . .				5	16	8
								,, Profit . . .				600	0	0
					£2105	16	8					£2105	16	8

R. White, Capital Account.

		Interest to 31st Dec.						Interest to 31st Dec.					
June 30.	To Cash .	£3	15	0	£150	0	0	Jan. 1. By Balance	£30	0	0	£600	0	0
Dec. 31.	,, Interest . .				5	16	8	Dec. 31. ,, Profit				300	0	0
	,, Balance . .				744	3	4							
					£900	0	0					£900	0	0

Profit and Loss Appropriation Account.

Dec. 31.	To W. Hay, Capital Account, for interest :—				Dec. 31.	By Profit earned for year .	£900	0 0
	Interest on account for year	£70	0 0		,,	R. White, Capital Account, for interest :—		
	Deduct—					Proportion of £96 : 5s., being one-third of total interest £32 1 8		
	Proportion of £96 : 5s., being two-thirds of total interest.	64	3 4			*Deduct*—		
		£5	16 8			Interest on account for year 26 5 0		
	,, Partners' Accounts, for share of net profit :—						5	16 8
	W. Hay, two-thirds £600 0 0							
	R. White, one-third 300 0 0							
		900	0 0					
		£905	16 8				£905	16 8

This method of allowing interest on the excess and charging it on the deficiency of the capital of each partner beyond or under a certain ratio gives the same results as allowing and charging interest in the usual way, always provided that the proportion of capital held by each partner is the same as his proportion of the profit. The following are the accounts as drawn up in the usual way, and it will be seen that the partners' balances of capital are the same as given above, as the capital held by the partners was two-thirds and one-third, and the profits were allocated also in the proportions of two-thirds and one-third.

W. Hay, Capital Account.

June 30.	To Cash . . .	£200	0 0		Jan. 1.	By Balance . . .	£1500	0 0
Dec. 31.	,, Balance . . .	1905	16 8		Dec. 31.	,, Interest *Cr.* £75 0 0		
						Dr. 5 0 0		
							70	0 0
						,, Profit . . .	535	16 8
		£2105	16 8				£2105	16 8

R. White, Capital Account.

June 30.	To Cash		£150	0	0	Jan. 1. By Balance	£600	0	0
Dec. 31.	,, Balance		744	3	4	Dec. 31. ,, Interest *Cr.* £30 0 0			
						Dr. 3 15 0			
							26	5	0
						,, Profit	267	18	4
			£894	3	4		£894	3	4

Profit and Loss Appropriation Account.

Dec. 31.	To Interest on partners' capital:—					Dec. 31. By Profit earned for year	£900	0	0
	W. Hay	£70	0	0					
	R. White	26	5	0					
		£96	5	0					
	,, Partners' accounts, for share of net profit:—								
	W. Hay, two-thirds £535 16 8								
	R. White, one-third 267 18 4								
		803	15	0					
		£900	0	0			£900	0	0

DIVISION OF PROFITS

The division of the profits of partnerships is governed by the contract of co-partnery, and by the provisions of the Partnership Act of 1890. The contract of co-partnery must be carefully read by the accountant, and all its stipulations given effect to. Sometimes contracts through being drafted by those not skilled in accounting contain provisions which if given effect to would have exactly the opposite effect of the intention of the parties, and in such cases great common sense and tact are requisite in framing the accounts. Where the provisions of a contract have not been exactly given effect to, the partners should be requested to put a docquet upon the deed of co-partnery making the necessary alteration upon it. Very often an accountant is asked to revise the draft of a deed of co-partnery, and in such cases he has an opportunity of seeing that all the provisions relating to his department will express the intentions of the parties.

I. *Profits to be divided in proportion to each Partner's Capital.*

Sometimes the division of the profits of a co-partnery is made according to the capital which each partner puts into the business. In such cases each partner is credited with the said amount in an account headed with the name of the partner, and the words "Capital as fixed in Deed of Co-partnery" are added. These accounts are always kept at the same figure, and other accounts are opened for the drawings of the partners and such other items as would ordinarily appear in the Capital Accounts.

Rule.

To allocate the profit made by partners in proportion to each partner's capital as fixed in the deed of co-partnery, divide the profit to be allocated by the total capital as fixed in the deed of co-partnery. This will give the profit which effeirs to each £1 of capital, and by multiplying this sum by the capital of each partner the share falling to each is ascertained.

Thus, suppose the profit to be divided is £900, and that Black's capital is £3200 and Brown's capital £2100. Then the total capital is £5300, and each £1 of capital is therefore entitled to $\frac{£900}{5300}$, equal to 3s. 4·755d. This sum multiplied by 3200 gives £543 : 8s. 0d. as Black's share of profit, and multiplied by 2100 gives £356 : 12s. 0d. as Brown's share.

II. *Profits to be divided in Proportion to each Partner's Capital and the time such Capital has been in the Business.*

Dividing the profits according to the amount of each partner's capital and the time it was of service to the co-partnery is practically the same as dividing the profits in the form of interest on the partners' accounts.

Rule.

To divide the profits of a co-partnery according to the amount of each partner's capital and the time it has been

in the business, multiply the sums on the credit side of each partner's account by the portion of time from the date of payment to the close of the account, and deduct from the sum of these products the sum of the products of the debit side formed in the same way. This will give the net products for each partner, and the profit to be allocated should be divided according to these products.

Thus, suppose the profit to be divided is £700, and the Capital Accounts for the year were as follows:—

W. Ross, Capital Account.

Dr.					*Cr.*		
Aug. 1. To Cash . .	£500	0	0	Jan. 1. By Balance .	£1000	0	0
Oct. 1. ,, do. . .	200	0	0	May 1. ,, Cash .	300	0	0
				Nov. 1. ,, do. .	200	0	0

A. Scott, Capital Account.

Dr.				*Cr.*		
			Jan. 1. By Balance .	£600	0	0
			June 1. ,, Cash . .	500	0	0
			Dec. 1. ,, do. . .	50	0	0

On the basis that the time is taken in months the question is worked out as follows:—

W. Ross—			
		1000 × 12	12,000
		300 × 8	2,400
		200 × 2	400
			14,800
Deduct—			
	500 × 5	2500	
	200 × 3	600	
			3,100
			11,700
A Scott—			
	600 × 12	7200	
	500 × 7	3500	
	50 × 1	50	
			10,750
			22,450

W. Ross is entitled to $\frac{11,700}{22,450}$ths of £700, equal to £364 : 16s. 3d., and A. Scott to $\frac{10,750}{22,450}$ths of £700, equal to £335 : 3s. 9d.

The average capital of each partner is found by dividing their net products by 12. Thus

W. Ross, $\frac{£11,700}{12}$, equals £975.

A. Scott, $\frac{£10,750}{12}$, equals £895 : 16s. 8d.,

and the question practically resolves itself into dividing the profits according to the average capital of the partners.

On the more correct basis that the time is taken in days, the profit of £700 would be divided as follows :—

W. Ross—			
		1000 × 365	365,000
		300 × 244	73,200
		200 × 60	12,000
			450,200
Deduct—			
	500 × 152	76,000	
	200 × 91	18,200	
			94,200
			356,000
A Scott—			
	600 × 365	219,000	
	500 × 213	106,500	
	50 × 30	1500	
			327,000
			683,000

W. Ross is entitled to $\frac{356,000}{683,000}$ths of £700, equal to £364 : 17s. 3d., and A. Scott to $\frac{327,000}{683,000}$ths of £700, equal to £335 : 2s. 9d. The difference by this more correct method is one shilling in favour of W. Ross.

Suppose again that A and B enter into a series of transactions as partners, on the footing that the profits at the end

of the year are to be divided according to the amount of the capital each has subscribed, and the time it has been invested. Suppose, further, that the profit is £1000, and the capital transactions as follows :—

Dec. 31.	A pays in cash	£2000	0	0
	B do.	1500	0	0
Feb. 28.	A do.	600	0	0
May 31.	B do.	500	0	0

If a month is taken as the unit of time the profit is divided as follows :—

	Capital.			Months to 31st Dec.	Product.		
	£	*s.*	*d.*		£	*s.*	*d.*
A. Dec. 31.	2000	0	0	12	24,000	0	0
Feb. 28.	600	0	0	10	6000	0	0
					30,000	0	0
B. Dec. 31.	1500	0	0	12	18,000	0	0
May 31.	500	0	0	7	3500	0	0
					21,500	0	0

A's capital is thus equal to £30,000 for one month, and B's capital is equivalent to £21,500 for one month. The profit of £1000 thus falls to be divided :—

$$A = £1000 \times \frac{30{,}000}{30{,}000 + 21{,}500} = £582\ 10\ 6$$

$$B = £1000 \times \frac{21{,}500}{30{,}000 + 21{,}500} = 417\ 9\ 6$$

£1000 0 0

If a day is taken as the unit of time we have:—

	Capital.			Days to 31st Dec.	Product.		
	£	s.	d.		£	s.	d.
A. Dec. 31.	2000	0	0	365	730,000	0	0
Feb. 28.	600	0	0	306	183,600	0	0
					913,600	0	0
B. Dec. 31.	1500	0	0	365	547,500	0	0
May 31.	500	0	0	214	107,000	0	0
					654,500	0	0

A's capital is thus equal to £913,600 for one day, and B's capital to £654,500 for one day. The profit of £1000 falls to be divided thus:—

$$A = £1000 \times \frac{913{,}600}{913{,}600 + 654{,}500} = £582\ 12\ 4$$

$$B = £1000 \times \frac{654{,}500}{913{,}600 + 654{,}500} = 417\ 7\ 8$$

£1000 0 0

III. *Profits to be divided in proportion to certain fixed ratios.*

The most usual way to divide the profits of a co-partnery is in proportion to certain ratios which are fixed by the deed of co-partnery. Before these ratios are applied to the net profit, allowance must be made for any salary to the partners and interest on the partners' Capital Accounts.

Rule.

To allocate the net profit made by partners in proportion to certain fixed ratios, add the ratios together, divide the profit to be allocated by this figure, and multiply the result by the numerator of each partner.

Thus, to divide £900 of net profit among A, B, and C in the proportion of 2, 3, and 4, we have as the addition of the ratios 9. Dividing the £900 by 9 we get £100, which

multiplied by 2, 3, and 4 gives £200, £300, and £400 as the shares of A, B, and C respectively.

Similarly, to divide £1200 among A, B, and C in the proportion of $\frac{1}{3}$, $\frac{1}{2}$, and $\frac{1}{6}$. Reducing the ratios to one common denominator, we obtain 2, 3, and 1 as the ratios, after reducing to the common denominator, 6. Dividing £1200 by 6 we obtain £200, and £200 multiplied by 2, 3, and 1 gives £400, £600, and £200 as the share of A, B, and C respectively.

Assumption of a Partner.

The following is the Balance Sheet of the firm of Cowan & Company at 31st December. It has been arranged by the two partners that a third partner, R. Wilson, is to be taken into partnership, and he pays on 31st December £36,000 into the old firm's Bank Account. Of this sum £28,000 is to be placed to the credit of R. Wilson, and the balance of his payment to the old partners as consideration for being taken into partnership. The old partners are to share the £8000 in proportion to their capital, but are to leave it in the business. For the new partnership 4 per cent is to be written off the book debts in respect of bad debts and discount, the value of the stock on hand is to be reduced to the extent of 5 per cent, and the copyrights, printing plant, and office fixtures and furniture were valued mutually, as follows :—

Copyrights	£24,000
Printing plant and office . . .	25,000
Fixtures and furniture . . .	1,700

The other assets and liabilities were to be taken as they appear in the Balance Sheet. The following are the accounts of the old partners, and the Balance Sheet of the new firm as at 1st January, giving effect to the cash payment by R. Wilson and the above values :—

COWAN & CO., PRINTERS AND PUBLISHERS

Balance Sheet as at 31st December.

Liabilities.				*Assets.*			
Due to trade creditors		£15,000	0 0	Book debts		£8,000	0 0
Loans		7,000	0 0	Stock :—			
Capital :—				Books	£4,000		
J. Cowan	£30,000			Paper, ink, etc.	3,000		
W. Bell	20,000					7,000	0 0
		50,000	0 0	Copyrights		25,000	0 0
				Printing plant and office		30,000	0 0
				Fixtures and furniture		1,500	0 0
				Bank of Scotland		500	0 0
		£72,000	0 0			£72,000	0 0

J. Cowan, Capital Account.

Dec. 31. To Share of depreciation, being ⅗ths of the decrease in the values of assets taken over by new firm, as follows :—				Dec. 31. By Balance		£30,000	0 0
Book debts	£192	0	0	,, Share of £8000 paid by R. Wilson in respect of partnership (⅗ths of £8000)		4,800	0 0
Stock	210	0	0				
Copyrights	600	0	0				
Plant and office	3,000	0	0				
	£4,002	0	0				
Deduct— Share of increase in value of fixtures and furniture	120	0	0				
	£3,882	0	0				
,, Balance	30,918	0	0				
	£34,800	0	0			£34,800	0 0

W. Bell, Capital Account.

Dec. 31.	To Share of depreciation, being ⅔ths of the decrease in the values of assets taken over by new firm, as follows:—				Dec. 31.	By Balance . .	£20,000 0 0
	Book debts .	£128	0	0	,,	Share of £8000 paid by R. Wilson in respect of partnership (⅔ths of £8000) . .	3,200 0 0
	Stock . .	140	0	0			
	Copyrights .	400	0	0			
	Plant and office	2,000	0	0			
		£2,668	0	0			
	Deduct— Share of increase in value of fixtures and furniture .	80	0	0			
		£2,588	0	0			
,,	Balance . .	20,612	0	0			
		£23,200	0	0			£23,200 0 0

COWAN & CO., PRINTERS AND PUBLISHERS

BALANCE SHEET of new firm as at 1st January.

Liabilities.					*Assets.*				
Due to trade creditors . .		£15,000	0	0	Book debts		£7,680	0	0
Loans		7,000	0	0	Stock :—				
Capital :—					Books . .	£3,800			
J. Cowan .	£30,918				Paper, ink, etc.	2,850			
W. Bell . .	20,612						6,650	0	0
R. Wilson .	28,000				Copyrights		24,000	0	0
		79,530	0	0	Printing plant and office .		25,000	0	0
					Fixtures and furniture .		1,700	0	0
					Bank of Scotland . .		36,500	0	0
		£101,530	0	0			£101,530	0	0

Dissolution of Partnership.

Under the deed of co-partnery of the firm of Millar, Nimmo, & Orr the three partners were interested in the profits of the business in the ratio of 2, 3, and 4 respectively, and 5 per cent was to be allowed on their capital before dividing the profits. In the event of the death of any of the partners, it was provided that the amount due

to his representatives should be the sum at his credit in the books of the concern at the date of the last annual balance, together with any sums since paid into the business by the deceased, interest on his capital, and a sum in respect of profit since the last balance to the date of death, based on the average yearly profits for the three years preceding the date of last balance, less any drawings from the business since that date. The balance so ascertained was to be paid to the representatives of the deceased partner in three equal instalments, for which bills were to be granted by the remaining partners, payable in three, six, and nine months from the date of death, and these bills were to include interest at the rate of 5 per cent. It was further provided that in the event of the decease of a partner the goodwill of the business was to be valued at one year's purchase of the average profits for the three years immediately preceding, and the share of the deceased partner was to be credited to his account. W. Orr died on 30th June. The average annual profits during the three years ending 31st December immediately preceding the death of W. Orr amounted to £18,000. From the following Trial Balance as at 30th June it is required to prepare a Trading Account, Profit and Loss Account for the six months, Partners' Accounts, and the Balance Sheet of the firm as at that date, after giving effect to the transactions consequent on the death of W. Orr. The amount to be credited to the partners in respect of interest on capital for the six months was £900, as follows:—

A. Millar	£200	0	0
J. Nimmo	250	0	0
W. Orr	450	0	0
	£900	0	0

Charge 5 per cent on the value of the factory to the Trading Account in respect of rent of factory, and write off 10 per cent from the plant for depreciation for the six months. The stock on hand at 30th June amounted to £5300.

Trial Balance as at 30th June.

Stock at 1st January	£10,000 0 0	
Purchases	160,000 0 0	
Factory wages and salaries	25,000 0 0	
Discount received, less discount allowed		£2,000 0 0
Sales		200,000 0 0
Bills receivable	2,000 0 0	
Bills payable		5,000 0 0
Office salaries	400 0 0	
Office expenses	200 0 0	
Customers' Accounts	50,000 0 0	
Bad debts	1,500 0 0	
Cash	3,000 0 0	
Travelling expenses	800 0 0	
Factory rates and taxes	100 0 0	
Office rent, rates, taxes, and insurance	200 0 0	
Factory	6,000 0 0	
Plant and machinery	2,000 0 0	
Office fixtures and fittings	250 0 0	
Trade creditors		15,000 0 0
Interest	800 0 0	
A. Millar, Capital Account		9,000 0 0
J. Nimmo, do.		11,750 0 0
W. Orr, do.		19,500 0 0
	£262,250 0 0	£262,250 0 0

Trading Account

For Six Months ending 30th June.

Jan. 1.	To Stock	£10,000	0	0	June 30. By Sales	£200,000	0	0
June 30.	,, Purchases	160,000	0	0	,, Stock	5,300	0	0
		£170,000	0	0				
	,, Factory, wages, and salaries	25,000	0	0				
	,, Factory rates and taxes	100	0	0				
	,, Rent of factory	300	0	0				
	,, Depreciation at 10 per cent on plant and machinery	200	0	0				
		£195,600	0	0				
	,, Profit and Loss Account	9,700	0	0				
		£205,300	0	0		£205,300	0	0

Profit and Loss Account

For Six Months ending 30th June.

June 30.	To Office expenses :—				June 30.	By Trading Account	£9,700 0 0
	Salaries . .	£400	0	0		,, Trading Account, for rent of factory	300 0 0
	Rent . . .	200	0	0		,, Discount . .	2,000 0 0
	General expenses	200	0	0			
		£800	0	0			
	,, Travelling expenses . .	800	0	0			
	,, Bad debts . .	1,500	0	0			
	,, Interest . .	800	0	0			
	,, Interest on capital :—						
	A. Millar £200						
	J. Nimmo 250						
	W. Orr 450						
	——	900	0	0			
		£4,800	0	0			
	,, W. Orr, sum credited to his account in terms of deed of co-partnery (⅘ths of £9000) . .	4,000	0	0			
	,, Balance of net profit, allocated thus :—						
	A. Millar, ⅘ths . £1280						
	J. Nimmo, ⅕ths . 1920						
	——	3,200	0	0			
		£12,000	0	0			£12,000 0 0

The partners' accounts are as follows :—

A. Millar's Capital Account.

June 30.	To Balance . .	£10,480	0	0	June 30.	By Balance . .	£9,000 0 0
						,, Interest on capital .	200 0 0
						,, Share of profit (⅘ths of £3200)	1,280 0 0
		£10,480	0	0			£10,480 0 0

J. Nimmo's Capital Account.

June 30.	To Balance .	.	£13,920	0	0	June 30. By Balance .	. £11,750	0	0
						,, Interest on capital .	250	0	0
						,, Share of profit (⅞ths of £3200)	1,920	0	0
			£13,920	0	0		£13,920	0	0

W. Orr's Capital Account.

June 30.	To Balance carried to W. Orr's Representatives' Account .	£31,950	0	0	June 30.	By Balance . .	£19,500	0	0
						,, Interest on capital .	450	0	0
						,, Profit and Loss, for share of profit per deed of co-partnery (⅘ths of £9000)	4,000	0	0
						,, Share of goodwill (⅘ths of £18,000) .	8,000	0	0
		£31,950	0	0			£31,950	0	0

The above balance of £31,950 is to be paid to W. Orr's representatives in three equal portions, for which bills were to be granted at three, six, and nine months, with interest at 5 per cent added. Three months' interest on £10,650 at 5 per cent is £133 : 2s. 6d., so that the amounts of the bills would be as follows:—

First bill at 3 months . . .	£10,783	2	6
Second bill at 6 months . .	10,916	5	0
Third bill at 9 months . . .	11,049	7	6

The Journal entries for the transactions consequent on the death of W. Orr would be as follows:—

JOURNAL, 30th June.

Profit and Loss Account, for interest on capital	*Dr.*	£900	0	0			
To A. Millar					£200	0	0
,, J. Nimmo					250	0	0
,, W. Orr					450	0	0
Goodwill	*Dr.*	8,000	0	0			
To W. Orr, Capital Account . .					8,000	0	0
Profit and Loss Account, for net profit	*Dr.*	7,200	0	0			
To A. Millar, Capital Account . .					1,280	0	0
,, J. Nimmo, do. . .					1,920	0	0
,, W. Orr, do. . .					4,000	0	0
W. Orr's Capital Account . .	*Dr.*	31,950	0	0			
To W. Orr's Representatives' Account					31,950	0	0
Interest	*Dr.*	798	15	0			
To W. Orr's representatives, for interest on—							
Bill at 3 months £133 2 6							
Bill at 6 months 266 5 0							
Bill at 9 months 399 7 6							
					798	15	0
W. Orr's representatives . .	*Dr.*	32,748	15	0			
To Bills payable, for the following bills :—							
Bill at 3 months £10,783 2 6							
Bill at 6 months 10,916 5 0							
Bill at 9 months 11,049 7 6							
					32,748	15	0

W. Orr's Representatives' Account, after carrying the balance from W. Orr's Capital Account and after giving effect to the bill transactions, would be as follows :—

W. Orr's Representatives.

June 30. To Bills payable .	£32,748	15	0	June 30. By Balance, carried from W. Orr's Capital Account . .	£31,950	0	0
				,, Interest on bills granted for balance due—			
				1st bill £133 2 6			
				2nd bill 266 5 0			
				3rd bill 399 7 6			
					798	15	0
	£32,748	15	0		£32,748	15	0

From the Journal entries it will be observed that an account is opened for goodwill, and the £8000 is debited to it, as that is the cost of goodwill to the new firm.

The Interest Account is also debited with £798 : 15s., which will be carried to the Profit and Loss Account for the next period, and appears as an asset in the Balance Sheet prepared after the death of W. Orr.

The Balance Sheet prepared immediately after W. Orr's death, and giving effect to all the transactions consequent thereon, is as follows :—

BALANCE SHEET as at 30th June
(after giving effect to the transactions consequent on W. Orr's death).

Liabilities.			*Assets.*		
DUE TO CREDITORS :—			DUE BY CUSTOMERS :—		
On open account	£15,000 0 0		On open account	£50,000 0 0	
On bills payable	5,000 0 0		On bills receivable	2,000 0 0	
	£20,000 0 0			£52,000 0 0	
DUE TO W. ORR'S REPRESENTATIVES ON BILLS PAYABLE	32,748 15 0		VALUE OF FACTORY	6,000 0 0	
CAPITAL :—			PLANT AND MACHINERY	1,800 0 0	
A. Millar £10,480 0 0			OFFICE FIXTURES AND FITTINGS	250 0 0	
J. Nimmo 13,920 0 0			INTEREST ON BILLS PAYABLE EFFEIRING TO NEXT PERIOD	798 15 0	
	24,400 0 0		GOODWILL	8,000 0 0	
			STOCK	5,300 0 0	
			CASH	3,000 0 0	
	£77,148 15 0			£77,148 15 0	

PARTNERSHIP TRANSACTIONS WORKED OUT

A Trading Account, a Profit and Loss Account, Partners' Capital Accounts, and a Balance Sheet have been prepared from the following particulars, and are shown here.

T. Hall and W. Blyth enter into partnership on 1st January, when they purchase a going business. T. Hall contributes £2500 and W. Blyth £1500, and the profit or loss is to be divided in the same proportion. T. Hall is to be entitled to a salary of £250 and W. Blyth to a salary of £600 before dividing the profit. Interest is to be allowed on the capital at the beginning of the year at the rate of 5 per cent.

At 31st December the Trial Balance of the business was as follows:—

T. Hall, Capital Account	£300 0 0	£2,500 0 0
W. Blyth, Capital Account	700 0 0	1,500 0 0
Stock at beginning of year	2,000 0 0	
Purchases	10,000 0 0	
Sales		8,000 0 0
Consignments		4,000 0 0
Book debts receivable, including consignments	3,000 0 0	
Creditors		2,500 0 0
Borrowed capital		1,000 0 0
Plant and fixtures	400 0 0	
Wages	2,270 0 0	
Salaries	200 0 0	
Rent and taxes	250 0 0	
Trade charges	300 0 0	
Interest and discount	200 0 0	
Commission		420 0 0
Cash in bank	300 0 0	
	£19,920 0 0	£19,920 0 0

At 31st December the stock on hand was valued at £3957. The proportion of insurance premiums paid but unexpired amounted to £15. On 31st December a quarter's rent in advance was paid, amounting to £48, and is included in the item of £250. Reserve 2 per cent on the total sales and consignments for loss through bad debts. Provide for interest on borrowed capital for three months ending 31st December at 4 per cent.

Trading Account.

Jan. 1.	To Stock at beginning of year		£2,000	0	0	Dec. 31. By Sales	£8,000	0 0
Dec. 31.	,, Purchases		10,000	0	0	,, Sales on consignment	4,000	0 0
			£12,000	0	0	,, Commission	420	0 0
	Deduct— Stock on hand at 31st December		3,957	0	0			
	Cost of Goods		£8,043	0	0			
	Wages		2,270	0	0			
			£10,313	0	0			
	,, Profit and Loss Account, being gross profit		2,107	0	0			
			£12,420	0	0		£12,420	0 0

Profit and Loss Account for the Year ending 31st December.

Dec. 31.	To Rent and taxes :—				Dec. 31.	By Trading Account, for	
	Cash paid . .	£250	0	0		gross profit . .	£2107 0 0
	Deduct—						
	Rent paid in advance . .	48	0	0			
		£202	0	0			
	,, Trade charges :—						
	Cash paid £300						
	Deduct—						
	Insurance unexpired 15						
		285	0	0			
	,, Interest and discount :—						
	Amount during year £200						
	Interest due on borrowed capital 10						
		210	0	0			
	,, Bad debts reserve:—						
	2 per cent on turnover of £12,000 .	240	0	0			
	,, Salaries . . .	200	0	0			
		£1137	0	0			
	,, Balance carried down	970	0	0			
		£2107	0	0			£2107 0 0
Dec. 31.	To Interest on partners' capital :—				Dec. 31.	By Balance brought down . . .	£970 0 0
	T. Hall . .	£125	0	0		,, Partners' Capital Accounts, for share of net loss, after charging interest on capital and salaries to partners :—	
	W. Blyth . .	75	0	0			
		£200	0	0			
	,, Partners' salaries :—						
	T. Hall . £250						
	W. Blyth . 600						
		850	0	0			
		£1050	0	0		T. Hall (⅝ths of £80) £50	
						W. Blyth (⅜ths of £80) 30	
							80 0 0
							£1050 0 0

Partners' Accounts

T. Hall, Capital Account.

Dec. 31.	To Cash, drawings	£300	0	0	Jan. 1.	By Cash	£2500	0	0
	,, Profit and Loss Account (⅝ths of £80)	50	0	0	Dec. 31.	,, Interest on above for one year at 5 per cent	125	0	0
	,, Balance	2525	0	0		,, Profit and Loss Account, for salary	250	0	0
		£2875	0	0			£2875	0	0

W. Blyth, Capital Account.

Dec. 31.	To Cash, drawings	£700	0	0	Jan. 1.	By Cash	£1500	0	0
	,, Profit and Loss Account (⅜ths of £80)	30	0	0	Dec. 31.	,, Interest on above for one year at 5 per cent	75	0	0
	,, Balance	1445	0	0		,, Profit and Loss Account, for salary	600	0	0
		£2175	0	0			£2175	0	0

HALL AND BLYTH

Balance Sheet as at 31st December.

Liabilities.					*Assets.*				
Trade creditors		£2500	0	0	Due by customers :—				
Borrowed capital :—					Amount due	£3000	0	0	
Amount of loan	£1000				*Deduct*—				
Interest to date (for quarter at 4 per cent)	10				Reserve for bad debts at the rate of 2 per cent on total sales and consignments	240	0	0	
		1010	0	0			£2760	0	0
Partners' Capital :—									
T. Hall	£2525				Stock on hand		3957	0	0
W. Blyth	1445				Plant and fixtures		400	0	0
		3970	0	0	Charges paid in advance :—				
					Insurance premiums	£15			
					Rent	48			
							63	0	0
					Cash in bank		300	0	0
		£7480	0	0			£7480	0	0

Exercises.

1. X and Y agree to enter into partnership on 1st January. Each brings £3000 in cash into the business. They agree to take over heritable property worth £5000 belonging to X. Y brings into the business goods worth £2000 and book debts valued at £2800. Prepare a Balance Sheet of the new firm as at 1st January.

2. X and Y are in partnership together on equal terms. X's capital at the beginning of the year was £2000 and Y's £1000. X has drawn £200 at the end of each quarter, and Y has drawn £300 at the end of each half-year. The profit for the year has amounted to £1500. Show the partners' Capital Accounts at the close of the year, allowing interest at the rate of 5 per cent on the capital, and charging interest at the same rate on the partners' drawings.

3. A and B, partners in a mercantile business, share profits and losses equally. At the end of five years the partnership terminated, and the Balance Sheet showed the following:—

Liabilities.				*Assets.*			
Creditors . . .		£3000	0 0	Accounts receivable .		£3000	0 0
Bills payable . .		1000	0 0	Goods . . .		4000	0 0
Capital:—				Plant and machinery		400	0 0
A .	£3000 0 0			Cash in bank . .		600	0 0
B .	1000 0 0						
		4000	0 0				
		£8000	0 0			£8000	0 0

Subsequently the business as it stands (except cash in bank) was sold for £5500, the purchaser taking over the liabilities. Make final adjustments and closing entries, and show the amount each partner receives.

4. Messrs. Smith and Brown embarked in business, agreeing to share profits equally, and to receive 5 per cent interest on their capital from time to time. The partners were to receive salaries of £300 and £200 per annum, to be charged to Salaries Account. At the end of a year the capital paid in was as follows:—

Smith.				*Brown.*			
Jan. 1. Cash	£500	0	0	Jan. 1. Cash	£500	0	0
Mar. 31. ,,	400	0	0	Mar. 15. ,,	300	0	0
July 15. ,,	600	0	0	July 1. ,,	600	0	0

On 31st December the books were closed, and it was found that there was a profit of £2000 before charging partners' salaries. Prepare Capital Accounts, showing amount due to each partner.

5. Messrs. Thin and Black are partners in business, sharing profits and losses equally. From the following Trial Balance of their Ledger at the close of the year prepare a Profit and Loss Account, Capital Accounts of the two partners, and a Balance Sheet as at the close of the year.

John Thin, Capital Account					£2000	0 0
Richard Black, Capital Account					1800	0 0
Bank	£3000	0	0			
Goods	800	0	0			
Bills receivable	3200	0	0			
Bills payable					2100	0 0
Trade expenses	100	0	0			
Interest	30	0	0			
Wages	350	0	0			
Sundry book accounts receivable	800	0	0			
Do. do. payable					2380	0 0
	£8280	0	0		£8280	0 0

Total of inventory of goods on hand at close of year, £2500.

6. The capital of three partners, A, B, and C, in a manufacturing business on 1st January was £25,000, of which A owned one-fifth, B two-fifths, and C two-fifths. On 31st December, one year thereafter, the condition of the business was found to be as follows:—

Assets.				*Liabilities.*			
Land and buildings	£16,000	0	0	Creditors	£8000	0	0
Plant and machinery	7000	0	0				
Stock on hand	2000	0	0				
Book debts	6000	0	0				
Cash in bank	3000	0	0				
	£34,000	0	0				

Partners' withdrawals:—A, £1500; B, £1000; C, £2000.

After crediting interest on capital at the credit of each partner at the beginning of the year at the rate of 5 per cent, show the net result for the year, and distribute the same, in the proportions of the partners' capital, to the partners' accounts. Prepare partners' Capital Accounts, showing the condition of each at the end of the year.

7. Messrs. Smith & Black are partners on equal terms, and they agree to dissolve partnership on 30th June. The following is the balance of their books at that date :—

Customers' Accounts	£7,000 0 0	
Creditors' Accounts		£8,000 0 0
Machinery and plant	3,000 0 0	
Stock in trade	4,000 0 0	
Bank		1,000 0 0
Profit and Loss Account		1,500 0 0
Smith, Capital Account		2,000 0 0
Black, Capital Account		1,500 0 0
	£14,000 0 0	£14,000 0 0

Black is to take over the business on the footing of the above balance, subject to 10 per cent being written off Customers' Accounts for bad debts, and 5 per cent being written off machinery and plant for depreciation. Show how this arrangement will be carried out, and how much Black will have to pay Smith.

8. A and B have been in partnership for some years, sharing the profits equally, and on 31st December their Balance Sheet was as follows :—

BALANCE SHEET as at 31st December.

Liabilities.		*Assets.*	
Creditors	£2,000 0 0	Customers	£10,000 0 0
Capital Accounts :—		Goods	7,000 0 0
A . £9,800		Plant and machinery	4,000 0 0
B . 10,000		Bank	800 0 0
	19,800 0 0		
	£21,800 0 0		£21,800 0 0

They resolve to assume C as a partner as at 1st January. The members of the new firm are to share

profits equally. In respect of being assumed as a partner C agrees to pay A and B each a sum equivalent to one year's profits based on the average for the last three years, and is to place £10,000 in the business as his capital. It is agreed that from the assets appearing in the above Balance Sheet 5 per cent is to be reserved off Customers' Accounts for discount and bad debts, and 10 per cent is to be written off machinery and plant for depreciation. The annual average profit for the past three years is £1500. In settlement of the transaction C pays £13,000 into the firm's Bank Account on 1st January. Prepare Balance Sheet of the new firm immediately thereafter.

9. John Kay and William Mackay start in business as wholesale warehousemen on 1st January. £12,000 was brought in by John Kay, and £8000 by William Mackay. The profits are to be divided in proportion to the capital brought in. On 31st December stock was taken, and amounted to £12,600, and the Trial Balance of the books at that date was as follows :—

Purchases	£28,750	0	0			
Sales				£20,400	0	0
Freight and carriage	120	0	0			
Salaries and wages	570	0	0			
Rent, rates, taxes, and insurance	220	0	0			
Travelling expenses	190	0	0			
Discount and commission	70	0	0			
Gas and fuel	40	0	0			
Office and petty expenses	120	0	0			
Trade debtors	4,320	0	0			
Bank	6,750	0	0			
Trade creditors				2,750	0	0
John Kay, Capital Account				12,000	0	0
W. Mackay, Capital Account				8,000	0	0
John Kay, Drawing Account	1,200	0	0			
W. Mackay, Drawing Account	800	0	0			
	£43,150	0	0	£43,150	0	0

Prepare from the above data the necessary closing entries, and make out the Profit and Loss Account and Balance Sheet, showing the exact position of the firm at 31st December.

10. The following is the Trial Balance of Brown & Smith, who are equally interested in the business, as at 31st December:—

Stock on hand at beginning of year	£8,000	0	0			
Purchases during year	40,000	0	0			
Sales during year				£50,000	0	0
Stock on hand at end of year, £7000.						
Discount				300	0	0
Rent, rates, and taxes	1,500	0	0			
Wages	2,000	0	0			
Salaries	500	0	0			
Expenses	250	0	0			
Stationery and postages	100	0	0			
Bills payable				3,000	0	0
Bills receivable	2,000	0	0			
Creditors' open accounts				4,000	0	0
Customers' open accounts	5,000	0	0			
Bank	1,000	0	0			
Brown, Capital Account				1,500	0	0
Smith, Capital Account				1,550	0	0
	£60,350	0	0	£60,350	0	0

The partners agree to dissolve on the footing that Smith retires from the business and is to get one-half of the goodwill of the business, which is to be taken as worth three years' profits of the average for the last three years, including the year of which the above is the Trial Balance. The profits for the two previous years have been £3500 and £3000. In ascertaining the profit for the last year reserve 5 per cent on Customers' Accounts and Bills Receivable for bad debts. Show the partners' Capital Accounts and the Balance Sheet of the business after Smith has been paid by cheque the balance due to him.

11. William Johnston and Edward Brown entered into partnership on 1st January, under the style of Johnston & Brown, as wholesale and general ironmongers. On 1st January Johnston paid in as his capital £3000, and Brown £2000. The profits are to be divided in proportion to the capital brought in. Interest at 5 per cent is to be charged on their respective drawings. On 31st December stock was taken, and amounted to £1000. The Trial Balance of the books as at that date was as follows:—

Plant and machinery	£1,800	0	0			
Office furniture and fittings	100	0	0			
Horses, carts, and harness	200	0	0			
Purchases	6,000	0	0			
Sales				£8,500	0	0
Rent, rates, taxes, and insurance	150	0	0			
Office and general expenses	130	0	0			
Freight and carriage	120	0	0			
Horse keep	80	0	0			
Discounts and allowances	40	0	0			
Interest, commission, and bank charges	30	0	0			
Printing, stationery, and advertising	20	0	0			
Travelling expenses	130	0	0			
Salaries and wages	1,000	0	0			
William Johnston, Capital Account				3,000	0	0
Edward Brown, Capital Account				2,000	0	0
William Johnston, drawings on 30th June	700	0	0			
Edward Brown, drawings on 30th June	500	0	0			
Trade debtors	3,000	0	0			
Trade creditors				500	0	0
	£14,000	0	0	£14,000	0	0

Prepare Profit and Loss Account, having first dealt with the interest referred to in the preliminary paragraph, pass the profit or loss, as the case may be, to the partners' accounts, and prepare a Balance Sheet as at 31st December.

12. A, B, and C enter into partnership on 1st January. A contributes £1800, B £1200, and C £600. The profits and losses are to be divided in the same proportion. The partners agree that before dividing the profits there shall be charged as an expense of the business, and placed to their individual credit, salaries as follows: A £100, B £100, and C £50. At 31st December the Trial Balance of their books showed the following:—

Capital, A				£1,800	0	0
,, B				1,200	0	0
,, C				600	0	0
Cash on hand and in bank	£400	0	0			
Stock at 1st January	2,100	0	0			
Purchases	10,300	0	0			
Sales				5,500	0	0
Plant and fixtures	400	0	0			
Book debts receivable, including consignments	4,100	0	0			
Consignments outwards, price realised				6,700	0	0
Trade creditors				2,890	0	0
Loan Account				1,200	0	0
Interest				50	0	0
Salaries	650	0	0			
Wages	400	0	0			
Carry forward	£18,350	0	0	£19,940	0	0

Brought forward . .	£18,350	0	0	£19,940	0	0
Rent, rates, and insurance, etc. . .	200	0	0			
Interest and discount	250	0	0			
Losses on Exchange . . .	400	0	0			
Commissions				610	0	0
Drawings, A (including salary of £100) .	550	0	0			
B (including salary of £100) .	450	0	0			
C (including salary of £50) .	350	0	0			
	£20,550	0	0	£20,550	0	0

Their inventory of stock on hand at 31st December amounted to £2300. Unexpired insurance premium, £5. Rent paid in advance, £10.

Prepare a Trading Account (cost as against proceeds), a Profit and Loss Account, and a Balance Sheet; also partners' Capital Accounts as at 31st December, allowing 5 per cent interest on capital at the beginning of the year, and reserving 3 per cent for losses on book debts.

13. From the following particulars of the business of Smith & Brown prepare a Manufacturing Account, a Profit and Loss Account, and Capital Accounts for the year, together with a Balance Sheet as at 31st December.

John Smith, Capital Account . . .				£4,000	0	0
Do. Drawings Account . .	£900	0	0			
William Brown, Capital Account . .				3,000	0	0
Do. Drawings Account .	600	0	0			
Bills payable				500	0	0
Bills receivable	885	0	0			
Stock at beginning of year . . .	3,000	0	0			
Purchases	6,000	0	0			
Sales				16,000	0	0
Customers' Accounts	2,000	0	0			
Creditors				600	0	0
Machinery Account	3,500	0	0			
Buildings	1,000	0	0			
Wages	4,000	0	0			
Office furniture	280	0	0			
Rent	300	0	0			
Cash on hand and in bank . . .	250	0	0			
Power, etc.	300	0	0			
Travelling expenses	150	0	0			
Commission	200	0	0			
Discount off purchases				100	0	0
Discounts to customers . . .	160	0	0			
Freight outwards	110	0	0			
Fire insurance	80	0	0			
Interest and bank charges . . .	60	0	0			
Horse keep	70	0	0			
Advertising	85	0	0			
Bad debts written off	100	0	0			
Sundry Expenses	170	0	0			
	£24 200	0	0	£24,200	0	0

The stock on hand at end of year was valued at £4000. Provide 5 per cent on book debts for bad debts and discount. Write 7 per cent off machinery and office furniture for depreciation. Carry forward unexpired fire insurance, £20. Provide for three days' wages, £40. Partners to get 5 per cent interest on capital at beginning of year (namely £4000 and £3000).

Smith to get £700 a year and Brown £400 in respect of salary. Profits thereafter to be divided equally.

14. John Richards, Mechanical Engineer, agreed to take his manager, Robert Low, into partnership as at 1st January, the latter arranging to bring in as his capital the sum of £5000, the profits to be divided in proportion to the capital of each partner. On 1st January the balance of John Richards' books which was accepted by Low was as follows:—

	Assets.	*Liabilities.*
Stock in trade	£4,500 0 0	
Plant and machinery	2,000 0 0	
Land and buildings	3,000 0 0	
Patent rights—2 years unexpired	400 0 0	
Book debts	2,500 0 0	
Trade creditors		£2,900 0 0
Bank		1,500 0 0
John Richards, Capital Account		8,000 0 0
	£12,400 0 0	£12,400 0 0

On 31st December the Trial Balance of the books stood as follows, but nothing had been written off in respect of plant and machinery and patent rights. Stock was taken by the partners, and amounted to £5000.

TRIAL BALANCE as at 31st December.

Stock at 1st January	£4,500 0 0
Purchases	7,000 0 0
Plant and machinery	2,250 0 0
Land and buildings	3,000 0 0
Patent rights	400 0 0
Book debts	3,200 0 0
Wages	1,500 0 0
Rent, rates, taxes, etc.	100 0 0
Carry forward	£21,950 0 0

Brought forward	£21,950	0	0			
Coal and lighting	150	0	0			
Carriage	100	0	0			
Trade expenses	150	0	0			
John Richards, Capital Account				£8,000	0	0
Robert Low, Capital Account				5,000	0	0
John Richards, Drawing Account	600	0	0			
Robert Low, Drawing Account	400	0	0			
Bank	1,400	0	0			
Sales				10,000	0	0
Creditors				1,750	0	0
	£24,750	0	0	£24,750	0	0

Prepare Profit and Loss Account and Balance Sheet, after writing off 5 per cent from plant and machinery and £200 from patent rights, and show the exact position of the two partners as at 31st December.

15. Robert Gow and William Erskine, trading as Robert Gow & Co., had been in business as general traders for some years, and their books were made up on the 31st December with a view to taking in their foreman, Peter Scott, as from the 1st January. The position of the business at that date was as follows:—

Land and buildings	£2,000	0	0			
Fixtures and fittings	400	0	0			
Stock on hand	3,000	0	0			
Debtors	1,800	0	0			
Bank	2,000	0	0			
Creditors				£1,200	0	0
Robert Gow, capital				6,000	0	0
William Erskine, capital				2,000	0	0
	£9,200	0	0	£9,200	0	0

Peter Scott brought in as his capital the sum of £1000, and the profits were to be divided in the proportion of six-ninths to Gow, two-ninths to Erskine, and one-ninth to Scott. The partners were to draw as against profits, on the 1st of each month, the respective sums of £100, £33 : 6s. 8d., and £16 : 13s. 4d.

On the 31st December the books were made up, and the book-keeper presented to the partners the following as the Trial Balance:—

Land and buildings	£2,300	0	0			
Fixtures and fittings	400	0	0			
Stock	3,000	0	0			
Debtors	3,600	0	0			
Creditors				£1,100	0	0
Bank	800	0	0			
Purchases	5,000	0	0			
Rent, rates, taxes, and insurance	400	0	0			
Freight and carriage	70	0	0			
Salaries and wages	430	0	0			
Coals, gas, and lighting	40	0	0			
Printing, stationery, and advertising	60	0	0			
General office expenses	50	0	0			
Discount and commission	150	0	0			
Robert Gow, drawings	1,200	0	0			
William Erskine, drawings	400	0	0			
Peter Scott, drawings	200	0	0			
Sales				8,000	0	0
Robert Gow, capital				6,000	0	0
William Erskine, capital				2,000	0	0
Peter Scott, capital				1,000	0	0
	£18,100	0	0	£18,100	0	0

The stock was taken by the foreman and partners jointly, and amounted to the sum of £2100.

Prepare a Profit and Loss Account, apportion the profit or loss, as the case may be, to the respective partners, and make out a Balance Sheet as at 31st December.

16. On 31st December 1896, Fraser, one of the partners of the firm of Ross & Fraser, purchased for £3000 Ruby Diamond Co. shares. The expenses of the purchase, amounting to £9, were charged to the Profit and Loss Account of the firm. The arbiter, under the contract of co-partnery, decided, on 31st December 1898, that the purchase was *ultra vires* of the contract of co-partnery. Ross is entitled to two-thirds of the profit and Fraser to one-third, and interest is allowed on their accounts at the rate of 5 per cent. At 31st December 1898 the Ruby Diamond Shares Account in the Ledger of the firm had £3000 on the debit side, and no dividends had been received. What entries will be required in the books of the firm as at 31st December 1898 to put matters right? Show the entries which will require to be made in the partners' accounts.

JOINT-STOCK COMPANIES' BOOKS

The books of account peculiar to joint-stock companies are those relating to the shares and debentures. The Companies Acts prescribe the following statistical books which must be kept:—

Register of Members; 1862 Act, sec. 25.
Annual List of Members and Summary; 1862 Act, sec. 26.
Register of Mortgages; 1907 Act, sec. 10 (not applicable to Scottish Companies).
Minute Book; 1862 Act, sec. 67.
Register of Directors and Managers; 1862 Act, sec. 45—applied to all companies by 1900 Act, sec. 20.

The Minute Book.

A Company Minute Book is for the purpose of containing the minutes of the meetings of the shareholders and of the directors. Sometimes one book is kept for the minutes of the shareholders' meetings and another for the minutes of meetings of the directors and committees of the directors. The secretary of the company writes up the minutes. A Scroll Minute Book is of considerable convenience. Minutes may be kept on the principle of giving a short account of everything of importance said or done at a meeting, or they may simply contain a record of the actual resolutions passed or of the findings of the meetings. In the case of directors' minutes it is usual to give the names of directors present, but in the case of shareholders this cannot always be done, although it is advisable to do it as far as possible. The minutes are read and confirmed by the next meeting as to their being records of facts, but in the case of companies they are not formally approved of as decisions. The minutes should be authenticated by the signature of the chairman of the meeting at which they are approved, or of the chairman who presided at the meeting of which the minute is a record. Sometimes the secretary also signs each minute. In

engrossing the minutes in the Minute Book no space should be left between each minute except what is sufficient for the signatures.

The Application and Allotment Book.

When a company is being floated, or when it is proposed to issue further capital, a prospectus is usually issued containing the necessary particulars to induce investors or speculators to put their money into the concern. A form of application for shares usually accompanies each prospectus. The chief point to be careful about in preparing a form of application for shares is, that it must contain an application for a definite number of shares or debentures and a definite undertaking to accept the shares or debentures allotted. The application must be signed by the person or persons applying. Applications for shares may be withdrawn up to the time of allotment. The application has, as a rule, to be made through the bankers of the company, and it is lodged with them, together with a deposit of so much per share and a certain percentage of the debentures applied for. The banker gives a receipt on the form appended to the form of application, and retains the applications themselves on behalf of the company. These applications may be received from the bankers when the period within which applications may be lodged has expired, and the applications having been alphabetically arranged, the Application and Allotment Book, a specimen of which is submitted, may then be filled up. Sometimes, however, the applications are so numerous that if it is desired, as is often the case, that the allotment should be made within a very short period of the closing of the lists, the applications should be obtained from the bank as soon as they are lodged, and the accountant should have sheets ready ruled similar to the Application and Allotment Book, and a sufficient staff of clerks to write up these sheets. Each sheet should have a letter of the alphabet at the head. These separate sheets, having been written up, are arranged alphabetically and summed, and their totals entered on abstract sheets. The secretary, manager, or promoters of

the company should, in the event of the shares being over-applied for, go over the lists and insert in the "proposed allotment" column how they consider the shares should be allotted, being careful to prefer those who are likely to influence favourably the business of the concern. When the directors meet the shares will be actually allotted, and the "shares allotted" column filled in. When there are two classes of shares, or shares and debentures, sometimes separate application letters are issued for each class, and when this is so, different coloured papers should be used for the application letters, and a separate set of application and allotment sheets should be used.

Immediately after the directors have allotted the shares the allotment letters and letters of regret should be sent out, and the Return of Allotments required under sec. 7 of the 1900 Act must be made within one month.

The great advantage of loose sheets is that any number of clerks may be employed upon the work at one time. When it is no longer necessary to have the sheets separate, they may be bound up into one or more volumes, and form the Application and Allotment Book.

Register of Transfers.

After the shares have been once allotted all subsequent alterations on the holdings are entered through the Register of Transfers. A form of Register of Transfers is submitted. It is practically a Share Journal, and the headings sufficiently explain its use.

Shareholders' Ledger.

A form of Shareholders' Ledger is submitted. The left side of the page is for the purpose of showing the shares acquired and the shares disposed of, and the right side of the page is the Cash Account of the shareholder, so far as the shares he holds are concerned. Both accounts are kept on the usual principles of debit and credit, and the headings fully show the method of using it. This ledger also forms the Register of Members prescribed by the Act.

APPLICATION AND

Date of Application.	No.	Name.	Designation.	Address.	Shares applied for.	Fol.	Deposit paid.	Proposed Allotment.

REGISTER

Date of lodging Transfer.	No. of Transfer.	Transferor's			Shares transferred.			Amount paid up.
		Name.	No. of Certificate.	Ledger folio.	Numbered		Number of Shares.	
					From	To		

Allotment Book

Shares allotted.	No. of Allotment Letter.	Numbers of Shares allotted.		Amount due on Allotment.	Cash returned.			Remarks.
		From	To		Date	Fol.	Amount.	

of Transfers

Consideration.	Date Transfer passed by Directors.	Transferee's				
		Name.	Designation.	Address.	No. of Certificate.	Ledger folio.

SHAREHOLDERS'

Name.... ..... *Designation* .....

Share Account.

SHARES DISPOSED OF.					SHARES ACQUIRED.						BALANCES.	
Date.	Fol.	Numbered		Shares disposed of.	Date.	Fol.	Numbered		Shares acquired.	No. of Certificate.	Date.	Shares held.
		From	To				From	To				

SHAREHOLDERS' LEDGER—PREFERENCE

Name ..... *Designation* .....

SHARES DISPOSED OF.								
Date.	Fol.	Preference.				Ordinary.			
		Numbered		Shares disposed of.	Paid up.	Numbered		Shares disposed of.	Paid up.
		From	To			From	To		

LEDGER

..... *Address* .....

Shareholders' Cash Account.

Dr. *Cr.*

Date.	Entry.	Amount payable.	Date.	Entry.	Cash paid.

AND ORDINARY SHARES TOGETHER

..... *Address* .....

		Shares acquired.								
		Preference.					Ordinary.			
Date.	Fol.	Numbered		Shares acquired.	Paid up.	No. of Certificate.	Numbered		Shares acquired.	Paid up.	No. of Certificate.
		From	To				From	To			

Shareholders' Ledger—Preference and Ordinary Shares together.

A form of Shareholders' Ledger is also given for use where it is desired to keep a record of the preference and ordinary shares held by each individual together. As a rule separate books are kept, but it is sometimes desirable to have the holdings of each individual together. It will be observed that no separate Cash Account is given.

Debenture Ledger.

A simple form of Debenture Ledger is given. This form is suitable for a Shareholders' Ledger where the shares are in the form of stock.

DEBENTURE LEDGER

Name .....

Designation .....

Address .....

Stock disposed of.			Stock acquired.			
Date.	Folio.	Amount.	Date.	Folio.	Amount.	No. of Certificate.

Form of Allotment Letter.

THE NATIONAL REALISATION COMPANY, LIMITED

No.....

ALLOTMENT LETTER

Stamp 6d.

5 NORTH ST. DAVID STREET,
EDINBURGH.

SIR,

We beg to inform you that, in pursuance of your application, the directors have allotted to you shares of each in this company, in terms of the prospectus dated .

We shall be glad, therefore, if you will kindly pay the sum of £ , being per share, the amount due on allotment, on or before the instant, to the company's bankers, as under.

Your obedient Servants,
LISLE AND MIDDLETON,
Secretaries.

To JOHN SMITH, Esq.,
16 Ross Terrace, Glasgow.

(This portion to be retained by the bankers.)

THE NATIONAL REALISATION COMPANY, LIMITED

BANKER'S RECEIPT FOR ALLOTMENT MONEY
(being per share called up).

EDINBURGH.

Received of John Smith, Esq., the sum of..... being per share due on allotment of..... ordinary shares of..... .....each in the above company.

For the Bank of Scotland,

1d. Stamp.

Cashier.

(This portion, when receipted by the bankers, must be preserved by the shareholder, to be exchanged for the share certificate in due course.)

R

This sheet should be presented entire to the company's bankers, with the amount payable. Cheques should be drawn to "bearer" or to the order of the bankers.

Form of Letter of Regret.

THE NATIONAL REALISATION COMPANY, LIMITED

No.....

5 North St. David Street,
Edinburgh.

Sir,

We regret to inform you that the directors are unable to allot you any ordinary shares of this company, in compliance with your application for shares of the company.

We enclose cheque for £ , being the amount paid by you on the above-mentioned application, and shall be glad if you will sign the form of receipt attached to the cheque sent herewith, and present the same for payment through your bankers.

We are, Sir,

Your obedient Servants,

Lisle and Middleton,
Secretaries.

To William Robertson, Esq.,
3 High Street, Leith.

THE NATIONAL REALISATION COMPANY, LIMITED

No.....

To The Bank of Scotland,

Pay to William Robertson, Esq., or order, the receipt below being signed, the sum of

For The National Realisation Co., Limited.

Director.

Lisle and Middleton,
Secretaries.

Receipt.

Received from The National Realisation Co., Limited, the sum of , being the amount deposited by me on application for shares in the same.

1d.
Stamp.

Form of Call Letter.

THE NATIONAL REALISATION COMPANY, LIMITED

Notice of First Call of ..... per Share, Ordinary Shares (making per share called up).

No.....

5 North St. David Street,
Edinburgh.

Sir,

We beg to give you notice that the first call of per share has this day been made by the board, in accordance with the terms of the prospectus.

On the ordinary shares held by you in this company, the call amounts to

This amount should be remitted to the company's bankers, the Bank of Scotland, on or before the .

We are, Sir,
Your obedient Servants,
Lisle and Middleton,
Secretaries.

To John Smith, Esq.,
16 Ross Terrace, Glasgow.

(This portion to be retained by the bankers.)

THE NATIONAL REALISATION COMPANY, LIMITED

No.....

Banker's Receipt for First Call of per Share on Ordinary Shares, payable (making per share called up).

Received the day of from J. Smith, Esq., the sum of , being first call of per share, due , on shares in the above company.

For the Bank of Scotland,

1d. Stamp.

Cashier.

(This portion when receipted by the bankers must be preserved by the shareholder, to be exchanged in due course for the share certificate.)

This sheet should be presented entire to the company's bankers, the Bank of Scotland, with the amount payable.

Exercises.

1. A private manufacturing corporation, with the view of being floated, desires a certificate of its average annual profits for three years; after charging up all costs, expenses, and depreciation, and an allowance for bad debts, it is found that the profits for the first year were £5000, for the second year £6000, plus £2000 profit on sale of investments, and for the third year £7000, plus £3000 profit on the sale of real estate. Give the annual average profit to be certified.

2. From the following particulars prepare the Balance Sheet of the Scottish Union Bank as at 31st December, and the Profit and Loss Account for the year ended at that date.

Capital					£114,430	0 0
Reserves					145,210	0 0
Notes issued					39,700	0 0
Customers' credit balances					897,530	0 0
Unpaid dividends					240	0 0
Gross profits					32,490	0 0
Bad debts			£3,000	0 0		
Expenses			11,500	0 0		
Interim dividend paid			5,720	0 0		
Balance of profit brought forward					1,560	0 0
Cash in hand			38,135	0 0		
Cash at call			44,230	0 0		
Investments			328,465	0 0		
Stamps in hand			505	0 0		
Premises			37,250	0 0		
Customers' debit balances			762,355	0 0		
			£1,231,160	0 0	£1,231,160	0 0

3. The Balance Sheet of a limited company was as under:—

Liabilities.		*Assets.*	
Capital issued, 15,000 shares of £10 each	£150,000	Expenditure on Capital Account	£74,800
Less calls in arrear	7,500	Book debts	32,100
	£142,500	Stock	19,900
Creditors	17,800	Cash	5,700
		Profit and Loss Account	27,800
	£160,300		£160,300

The company obtained the consent of the court to a reduction of its capital by making each £10 share into a £5 share in order that the debit on its Profit and Loss Account might be written off, and the Expenditure on Capital Account reduced.

Prepare revised Balance Sheet, giving effect to the reduction.

4. The Balance Sheet of a joint-stock company as at 1st January was as follows:—

Liabilities.		*Assets.*	
Creditors, open accounts	£3,200	Land and buildings	£10,000
Bills payable	6,000	Plant and machinery	17,000
Capital	40,000	Horses and waggons	3,000
Profit and Loss Account	6,100	Patents and goodwill	4,100
		Goods on hand	9,800
		Accounts receivable	7,000
		Cash in bank	4,400
	£55,300		£55,300

A year later, on 31st December, after an audit of the books and accounts, the Balance Sheet was as follows:—

Liabilities.			*Assets.*		
Creditors, open accounts		£3,400	Land and buildings		£10,400
Mortgage		5,000	Plant and machinery:—		
Capital		40,000	Balance, 1st Jan.	£17,000	
Profit and Loss Account:—			Less depreciation	1,700	
Balance last year	£6,100				15,300
Profit this year	4,680		Horses and waggons:—		
		10,780	Balance, 1st Jan.	£3,000	
			Less depreciation	450	
					2,550
			Patents and goodwill		4,100
			Goods on hand		13,000
			Accounts receivable		6,600
			Agency investments		3,000
			Cash in bank		4,230
		£59,180			£59,180

From the foregoing it will be seen that for the year a net profit of £4680 has been earned, while the accounts receivable are smaller, and the cash balance on hand is less than at the beginning of the year, though no dividend has in the meantime been paid. Prepare statement showing what has become of the profits earned.

5. The directors of a manufacturing company, before the closing and auditing of the books for the half-year ending 31st December, declare out of the net earnings of the company a dividend for the half-year of 4 per cent per annum on the preferred stock of £40,000, and of 3 per cent per annum on the ordinary stock of £40,000. There has been brought forward from the last half-year an undivided balance of profit of £1600, and after the audit of the books the Trial Balance is found to be as follows:—

TRIAL BALANCE as at 31st December.

Preferred stock					£40,000	0 0
Ordinary stock					40,000	0 0
Sales					87,670	0 0
Bills payable					10,400	0 0
Accounts payable					4,000	0 0
Profit and Loss Account					1,600	0 0
Property and buildings				£13,000	0 0	
Plant and machinery				16,000	0 0	
Patents and goodwill				32,000	0 0	
Stock on hand, 1st July				11,600	0 0	
Purchases				33,000	0 0	
Wages				35,200	0 0	
Coal				2,400	0 0	
Salaries, general				4,400	0 0	
Do. management				2,000	0 0	
Insurance				350	0 0	
Repairs				400	0 0	
Discount and allowances				2,500	0 0	
Freight				600	0 0	
Discount and interest				300	0 0	
Cash in bank				3,200	0 0	
Investments				6,200	0 0	
Miscellaneous expenses				1,720	0 0	
Book debts				18,800	0 0	
				£183,670	0 0	£183,670 0 0

The stock on hand at 31st December is £10,600. Prepare Profit and Loss Account and Balance Sheet from the above, giving effect in the accounts to depreciation at

the rate of 6 per cent per annum on plant and machinery, and an allowance of 5 per cent on book debts to provide for bad accounts; also create a liability in the Balance Sheet for the dividends declared as above stated.

6. From the following particulars prepare Trading and Profit and Loss Accounts for the year, and Balance Sheet as at 31st December, of Hugh Rose and Co., Limited.

TRIAL BALANCE

Capital					£10,000	0 0
Sundry creditors					15,000	0 0
Bills payable					2,000	0 0
Profit and Loss, balance from previous year					1,000	0 0
Interim dividend paid	£1,500	0	0			
Cash on deposit	5,000	0	0			
Cash at bank	200	0	0			
Cash in hand	100	0	0			
Land and buildings	12,000	0	0			
Fixtures and furniture	700	0	0			
Sundry debtors	3,250	0	0			
Fire insurances	200	0	0			
Goodwill	3,000	0	0			
Stock at beginning of year	10,000	0	0			
Purchases	60,000	0	0			
Sales					80,000	0 0
Discounts obtained					2,000	0 0
Rent	3,000	0	0			
Rates and taxes	500	0	0			
Gas, electric light, and water	600	0	0			
Wages	4,500	0	0			
Commissions					1,500	0 0
Advertising	900	0	0			
Price lists, printing and postages	1,600	0	0			
Carriage, and packing material	1,500	0	0			
General trade expenses	400	0	0			
Interest	500	0	0			
Discounts allowed	80	0	0			
Annual painting of premises	70	0	0			
Bad debts	200	0	0			
Preliminary expenses	1,000	0	0			
Salaries	700	0	0			
	£111,500	0	0		£111,500	0 0

The stock on hand at the close of the year was valued at £9000. Write off £500 from preliminary expenses, and reserve £50 of fire insurance premiums paid in advance.

The conversion of a Private Firm into a Joint-Stock Company.

When a private firm is converted into a joint-stock company it is usual to introduce a new set of books altogether, but it is sometimes more convenient for the new company to continue to use the books of the old firm. The method of treating the accounts of a private firm when it is converted into a joint-stock company, and where it is desired to continue the use of the books of the old firm will be seen from the following example:—

The firm of Ross & Carr, Iron Merchants, of which W. Ross and A. Carr are the sole partners, is registered as a limited liability company. The new company take over the whole assets and liabilities of the old firm as at 1st January. The following is the Balance Sheet of the old firm:—

ROSS & CARR

BALANCE SHEET as at 31st December.

Liabilities.			*Assets.*	
Creditors' Accounts		£7,000	Customers' Accounts	£8,000
Bills payable		2,000	Goods	14,000
		£9,000	Warehouse	3,000
			Bank of Scotland	1,000
Partners' capital:—				
W. Ross	£11,000			
A. Carr	6,000			
		17,000		
		£26,000		£26,000

The new firm is to have a capital of £50,000, divided into 50,000 shares of £1 each. It is proposed to issue at present only £30,000. The amount payable to the vendors is £20,000, of which £15,000 is payable in cash and £5000 in 5000 shares of £1 each, to be held as fully paid. The remainder of the capital issued, £25,000, is fully subscribed.

It is required to show the entries which it is necessary to make in the books of the old firm on the footing that the company is to use these books. It is evident that since £20,000 is the purchase price, and as the partners' capital is only £17,000, that £3000 is the amount paid for goodwill, and accordingly an account for goodwill must be raised. If the partners share the profits of the old firm in the proportion of two-thirds to W. Ross and one-third to A. Carr, then £2000 of the goodwill must be credited to W. Ross, and £1000 of the goodwill to A. Carr. On the further assumption that the shares are to be allotted to the old partners in equal proportions, the necessary Journal entries in the old books of the firm would be as follows :—

JOURNAL

Goodwill	*Dr.*	£3,000	0	0			
To W. Ross					£2,000	0	0
,, A. Carr					1,000	0	0
W. Ross	*Dr.*	2,500	0	0			
A. Carr	,,	2,500	0	0			
Sundry shareholders . .	,,	25,000	0	0			
To Capital					30,000	0	0
If the cash paid by the shareholders on their shares is paid through the Bank of Scotland, the following entry would require to be made :—							
Bank of Scotland . . .	*Dr.*	25,000	0	0			
To sundry shareholders . .					25,000	0	0
If the partners of the old firm are settled with by cheque on the Bank of Scotland, the entry would be :—							
W. Ross.	*Dr.*	10,500	0	0			
A. Carr	,,	4,500	0	0			
To Bank of Scotland . .					15,000	0	0

The partners' accounts, after these transactions had been carried out, would appear as follows :—

W. Ross, Capital Account.

Dec. 31. To Capital (new company) .	£2,500	Dec. 31. By Balance .	£11,000
,, Bank of Scotland . .	10,500	,, Goodwill .	2,000
	£13,000		£13,000

A. Carr, Capital Account.

Dec. 31.	To Capital (new company) .	£2500	Dec. 31.	By Balance . .	£6000
	,, Bank of Scotland . .	4500		,, Goodwill . .	1000
		£7000			£7000

If the books of the old firm were not continued by the new company the closing entries to be made in the old books would be as follows:—

Ross, Carr, & Co., Limited . .	*Dr.*	£29,000	0	0			
To Customers					£8,000	0	0
,, Goods					14,000	0	0
,, Warehouse					3,000	0	0
,, Bank of Scotland . . .					1,000	0	0
,, W. Ross (share of goodwill) .					2,000	0	0
,, A. Carr (share of goodwill) .					1,000	0	0
Creditors	*Dr.*	7,000	0	0			
Bills payable	,,	2,000	0	0			
W. Ross (shares)	,,	2,500	0	0			
W. Ross (cash)	,,	10,500	0	0			
A. Carr (shares)	,,	2,500	0	0			
A. Carr (cash)	,,	4,500	0	0			
To Ross, Carr, & Co., Limited .					29,000	0	0

The opening entries in the books of Ross, Carr, and Co., Limited, would be as follows:—

Customers	*Dr.*	£8,000	0	0			
Goods	,,	14,000	0	0			
Warehouse	,,	3,000	0	0			
Bank of Scotland . . .	,,	1,000	0	0			
Goodwill	,,	3,000	0	0			
To Ross & Carr					£29,000	0	0
Ross & Carr	*Dr.*	29,000	0	0			
To Creditors					7,000	0	0
,, Bills payable . . .					2,000	0	0
,, Capital					5,000	0	0
,, Bank of Scotland . . .					15,000	0	0

Exercises.

1. Tod and Co. dispose of their business to a company for £50,000 upon the following terms, viz.—

£10,000 in cash.
£40,000 in fully paid shares of £1 each.

The assets taken over by the company consist of:—

Stock-in-trade	£30,000	0	0
Book debts	8,000	0	0
Fixtures, fittings, and utensils .	1,000	0	0
Plant	1,500	0	0

Show the entries to be made in the books of the company to record these transactions.

2. A private firm having assets consisting of land and buildings, £10,000; plant and machinery, £15,000; book debts, £7000; stock on hand, £8000; and liabilities consisting of bills payable, £3000; transfers its entire business on 1st January to a joint-stock company for £15,000 in debentures, £15,000 in preference shares, and £15,000 in ordinary shares.

Show the closing entries and Ledger Accounts in the books of the old firm, and the opening entries in the books of the joint-stock company.

3. A company is incorporated to purchase the three concerns, A, B, and C, doing the same class of business. The assets, the liabilities, and the average annual net profits of each concern for the past five years are as follows:—

	A	B	C
Assets as valued . .	£20,000	£30,000	£40,000
Liabilities	6,000	10,000	15,000
Annual net profits, average, five years . . .	2,000	3,000	1,000

It is required to know what amount of stock of the new company should be allotted to each concern as equitable compensation for net assets and goodwill, and the matter is referred to you for report. What should be the amount of the capital of the new company, and how should it be apportioned to A, B, and C?

4. The Riverside Gas Company, Limited, is formed to take over as a going concern the assets and liabilities of a private firm of gas manufacturers. The capital of the company is £21,000 in 21,000 shares of £1 each. A, B,

C, D, E, F, and G take 3000 shares each, and pay them fully up. The company pays £13,000 to the old firm in cash, and takes over a heritable bond for £3000, which is the only liability of the old firm.

On making an inventory of the property for the purpose of distribution to proper accounts, the following values, exclusive of goodwill, are put upon the assets:—

Land and buildings	£5,000
Coal-gas plant, machinery, and fittings	2,200
Water-gas plant, machinery, and fittings	1,800
Mains	6,000
Meters	300
Supplies	700
Office furniture and fixtures	150
	£16,150

Frame the necessary entries to open the company's books, and prepare a Balance Sheet, showing how the company stands after giving effect to the above transactions.

MANUFACTURERS' ACCOUNTS

The accounts of manufacturers may be treated in various ways, according to their special requirements. The following transactions are supposed to be the transactions of a manufacturer and trader who not only manufactures goods with the view of selling them, but also purchases finished goods, which he sells along with the goods of his own manufacture. There are three different methods shown in which the transactions may be treated, and the method to be adopted in any particular case will depend upon the nature of the business and the requirements of the manufacturer. The distinction between the three methods will be best appreciated after they have been worked out in detail.

Manufacturer's Accounts

Transactions for the Year.

Jan. 1.	Value of stock on hand at beginning of year :—			
	Raw material	£800	0	0
	Goods in process of manufacture	200	0	0
	Finished goods . . .	1,000	0	0
Dec. 31.	Purchases during year :—			
	Raw material	4,500	0	0
	Finished goods . . .	1,500	0	0
	Wages	5,000	0	0
	Sales	15,300	0	0
	Trading price of goods manufactured during the year	11,600	0	0
	Value of stock on hand at end of year :—			
	Raw material	700	0	0
	Goods in process of manufacture	100	0	0
	Finished goods . . .	900	0	0

First Method.—Manufactured Goods and Finished Goods purchased kept in one Account

By the first method the Trading Account is shown for the year, and the result of the transactions is seen to be a profit of £4000, but no attempt is made to distinguish the amount of profit made from manufacture and from the purchase and sale of finished goods. Only one account is kept, namely the Trading Account, as under:

Trading Account for Year.

Dr. *Cr.*

Jan. 1.	To Stock on hand at beginning of year :—				Dec. 31.	By Sales . . .	£15,300	0
	Raw material .	£800	0	0		,, Stock on hand at end of year :—		
	Goods in process of manufacture .	200	0	0		Raw material	£700	
	Finished goods .	1,000	0	0		Goods in process of manufacture .	100	
		£2,000	0	0		Finished goods	900	
Dec. 31.	,, Purchases during year :—						1,700	0
	Raw material .	4,500	0	0				
	Finished goods .	1,500	0	0				
	,, Wages . . .	5,000	0	0				
	,, Gross profit, carried to Profit and Loss Account . . .	4,000	0	0				
		£17,000	0	0			£17,000	0

Second Method.—SHOWING THE COST OF THE GOODS MANUFACTURED

By the second method a Manufacturing Cost Account is kept, by means of which the cost of the goods actually manufactured during the year is ascertained, and this is debited to a separate Trading Account, which shows the profit upon the goods manufactured and purchased. This method is preferable to the first, because by it the cost of manufacturing the goods is ascertained, and it is useful to compare the cost of goods manufactured in any one year with that of other years.

Manufacturing Cost Account.

Dr. *Cr.*

an. 1.	To Stock on hand at beginning of year :—				Dec. 31.	By Stock on hand at end of year :—		
	Raw material .	£800	0	0		Raw material .	£700	0 0
	Goods in process of manufacture.	200	0	0		Goods in process of manufacture .	100	0 0
		£1,000	0	0			£800	0 0
Dec. 31.	,, Purchases—Raw material . .	4,500	0	0		,, Trading Account, for cost of goods manufactured during year	9,700	0 0
	,, Wages . . .	5,000	0	0				
		£10,500	0	0			£10,500	0 0

Trading Account.

an. 1.	To Stock of finished goods at beginning of year	£1,000	0	0	Dec. 31.	By Sales . . .	£15,300	0 0
Dec. 31.	,, Manufacturing Cost Account, for cost of goods manufactured during year . . .	9,700	0	0		,, Stock of finished goods on hand at end of year . .	900	0 0
	,, Purchases, finished goods . . .	1,500	0	0				
	,, Gross profit, carried to Profit and Loss Account . . .	4,000	0	0				
		£16,200	0	0			£16,200	0 0

Third Method.—Showing the Profit on Manufacturing and Profit on Trading separately

The third method is the most satisfactory, as by it the profit from the manufacture of the goods is ascertained. This is accomplished by crediting the goods manufactured during the year at the ordinary trading prices at which they could be purchased from other manufacturers to the Manufacturing Account, and debiting this sum to the Trading Account. The Manufacturing Account thus shows the profit on the manufacturing department, and the Trading Account the profit on trading. The manufactured goods are charged at the same price as the finished goods could be purchased. On the assumption that the trade price of the goods manufactured during the year is £11,600, it will be seen from the Manufacturing Account that the profit on manufacturing is £1900, and that the profit from trade is £2100, making, as before, a total gross profit of £4000.

Manufacturing Account.

Dr.						Cr.			
. 1.	To Stock on hand at beginning of year :—				Dec. 31.	By Trading Account, for trade price of goods manufactured during the year.			
	Raw material . .	£800	0	0			£11,600	0	0
	Goods in process of manufacture. .	200	0	0	,,	Stock on hand at end of year :—			
		£1,000	0	0		Raw material £700			
. 31.	,, Purchases — Raw material . .	4,500	0	0		Goods in process of manufacture. . 100			
	,, Wages . . .	5,000	0	0			800	0	0
		£10,500	0	0					
	,, Profit and Loss Account, for profit on manufacturing department . .	1,900	0	0					
		£12,400	0	0			£12,400	0	0

ABSTRACT OF CO

Number of Contract.	Balance expended as at beginning of Year of unsettled Contracts.	Wages.	Stores.	Material.	Plant.	Special outlay.	Expense
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s.
34	50 0 0	120 0 0		100 0 0			
35	10 0 0	350 0 0		320 0 0			
36		180 0 0		150 0 0			
37		70 0 0		60 0 0			
General	140 0 0	4280 0 0		3970 0 0			
	200 0 0	5000 0 0		4600 0 0			

Trading Account.

Jan. 1.	To Stock of finished goods at beginning of year	£1,000	0	0	Dec. 31. By Sales . . .	£15 300	0
Dec. 31.	,, Manufacturing Account, for trade price of goods manufactured during year	11,600	0	0	,, Stock of finished goods on hand at end of year . .	900	0
	,, Purchases of finished goods during year .	1,500	0	0			
	,, Profit and Loss Account, for profit on trade during year .	2,100	0	0			
		£16,200	0	0		£16,200	0

Abstract of Cost Accounts for Year.

There is submitted an Abstract of Cost Accounts for year with the above transactions filled in, although the form is general and of wider application, so that all the columns are not used up by these somewhat restricted illustrations. The uses, however, of these other columns will be readily understood from their headings.

COUNTS FOR YEAR

Profit.			Total.			Contract Price received.			Stores sold or returned.			Plant sold or returned.			Loss.			Balance expended as at close of year of unsettled Contracts.			Total.		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
0	0	0	330	0	0	330	0	0													330	0	0
0	0	0	850	0	0	850	0	0													850	0	0
0	0	0	400	0	0	400	0	0													400	0	0
0	0	0	160	0	0	130	0	0										30	0	0	160	0	0
0	0	0	9,960	0	0	9,890	0	0										70	0	0	9,960	0	0
0	0	0	11,700	0	0	11,600	0	0										100	0	0	11,700	0	0

Exercises.

1. W. Allan is a wholesale clothing manufacturer. On 1st January his stock was £7000. During the half-year ended 30th June his transactions were:—

Purchases	£8,000	0	0
Sales	13,000	0	0
Wages (making)	2,400	0	0
Wages (cutting-foreman and warehouse)	300	0	0
Salesman and office expenses	500	0	0
Rent, rates, and insurance	100	0	0
Travelling and commission	310	0	0
Advertising and other trade expenses	200	0	0
Discounts and bad debts	350	0	0
Bank interest and charges	50	0	0
Interest paid on loan	50	0	0
Stock on hand at end of half year	8,000	0	0

Prepare Trading and Profit and Loss Accounts from these figures.

2. From the following particulars of the business of W. S. Black prepare Trading Account and Profit and Loss Account for the year, and Balance Sheet as at the close of the year.

TRIAL BALANCE as at 31st December.

Stock at beginning of year			£3,000	0	0		
Rent, rates, taxes, etc.			500	0	0		
General expenses			300	0	0		
Sales						£30,000	0 0
Purchases			25,000	0	0		
Capital	£7000						
Less Drawings	1000						
						6,000	0 0
Trade creditors						3,000	0 0
Petty cash expended			98	0	0		
Petty cash on hand			5	0	0		
Bills receivable			2,000	0	0		
Bills payable						1,000	0 0
Bank			1,200	0	0		
Wages and salaries			1,300	0	0		
Carriages			300	0	0		
Discount			1,100	0	0	2,000	0 0
Bad debts			150	0	0		
Customers			7,047	0	0		
			£42,000	0	0	£42,000	0 0

Stock at end of year, £2500.

3. From the following Trial Balance of the books of John Dick as at 31st December prepare Trading Account, Profit and Loss Account, and Balance Sheet.

John Dick, capital						£18,000	0 0
John Dick, drawings			£1,800	0	0		
Stock-in-trade, 1st January			12,500	0	0		
Purchases			41,750	0	0		
Wages (manufacturing)			7,890	0	0		
Bills receivable			1,450	0	0		
Bills payable						7,900	0 0
Trade creditors						6,225	0 0
Advances on consignments						2,400	0 0
Bank balance			3,710	0	0		
Goods sold						53,100	0 0
Consignments			3,100	0	0		
Fire insurance			60	0	0		
Book debts			11,100	0	0		
Reserve and Contingency Fund						850	0 0
Machinery and plant			3,100	0	0		
Discount			310	0	0		
Rent, rates, and taxes			700	0	0		
Bad debts			660	0	0		
Trade expenses			345	0	0		
			£88,475	0	0	£88,475	0 0

Stock-in-trade at 31st December, £16,400.

Allow for depreciation on machinery and plant at the rate of 5 per cent, and include wages outstanding, £20, and rent outstanding, £30.

4. The Trial Balance of a manufacturing firm, taken at 31st December, was as follows:—

Capital, A		£8,000 0 0
Do. B		4,000 0 0
Plant and machinery	£7,000 0 0	
Purchases	7,600 0 0	
Sales		19,000 0 0
Stock on hand at 1st January	3,000 0 0	
Wages	4,800 0 0	
Salaries	1,200 0 0	
Travelling expenses	500 0 0	
Interest	120 0 0	
Stationery and printing	240 0 0	
Rents and taxes	700 0 0	
Discounts and allowances	250 0 0	
Fuel	600 0 0	
Insurance	230 0 0	
Freight	300 0 0	
General expenses	120 0 0	
Bank		1,000 0 0
Creditors		800 0 0
Accounts receivable	5,000 0 0	
Rent of steam-power		300 0 0
Cash on hand	40 0 0	
Loan Account	1,400 0 0	
	£33,100 0 0	£33,100 0 0

The stock on hand at 31st December amounted to £5000; each partner is to be credited with 5 per cent on his capital for one year before profits are ascertained; 3 per cent to be written off book debts for discount; 10 per cent to be written off machinery and plant for depreciation; unexpired insurance to the extent of £40 to be taken into account; net profit to be divided two-thirds to A and one-third to B. Draft Journal entries for closing the books, and prepare Trading Account and Profit and Loss Account, together with final Balance Sheet.

5. From the following particulars of the business of Jamieson & Robb, Timber Merchants and Wood Turners, prepare Trading and Profit and Loss Accounts, and Balance Sheet as at the close of the year.

TRIAL BALANCE as at 31st December.

J. Jamieson, Capital Account					£5,000	0	0
R. Robb, Capital Account					4,000	0	0
Sales					10,000	0	0
Stock at 1st January			£2,500	0	0		
Purchases (timber)			8,000	0	0		
Bills payable					3,000	0	0
Debtors			4,200	0	0		
Creditors					2,000	0	0
Carriage, cartage, and horse expenses			500	0	0		
Repairs and maintenance			100	0	0		
Coal			70	0	0		
Gas and water			20	0	0		
Oil, grease, and waste			40	0	0		
Feu-duty			50	0	0		
Rates, taxes, and insurance			70	0	0		
Bank interest			20	0	0		
Discounts and allowances			200	0	0		
Bad debts			60	0	0		
Buildings, fixed machinery, and plant			4,000	0	0		
Horses, carts, harness, etc.			400	0	0		
Loose tools, utensils, and furniture			150	0	0		
Wages			1,000	0	0		
Salaries			400	0	0		
Incidental expenses			100	0	0		
Partners' salaries			300	0	0		
Cash at bank			800	0	0		
Cash in hand			20	0	0		
Bills receivable			1,000	0	0		
			£24,000	0	0	£24,000	0 0

Stock at 31st December, £3000.

Make provision for the following:—

Depreciation on buildings, etc., £200.
Accruing incidental expenses, £50.
Discount 5 per cent on debtors' balances.
Loss on debtors' balances, £40.

The net profit is divisible between the partners in proportion to their capital at 1st January.

6. Prepare Profit and Loss Account and Balance Sheet from the following Trial Balance, as at the 31st of December, of the business of J. Purves, Tobacco Manufacturer:—

J. Purves, capital			£800	0	0	£4,500	0 0
Sales						10,000	0 0
Tobacco purchased			2,000	0	0		
Loan on mortgage						1,000	0 0
Machinery and plant			1,500	0	0		
Land and buildings			2,000	0	0		
Carry forward			£6,300	0	0	£15,500	0 0

Brought forward	£6,300	0	0	£15,500	0	0
Creditors				1,500	0	0
Wages	5,000	0	0			
Customers	1,000	0	0			
Boxes, labels, etc., for year	500	0	0			
Rates and taxes	40	0	0			
Bills receivable	500	0	0			
Insurance	10	0	0			
Carriage	150	0	0			
Petty cash and postages	100	0	0			
Stock at beginning of year	2,000	0	0			
Cash at bank and in hand	1,400	0	0			
	£17,000	0	0	£17,000	0	0

Charge depreciation on land and buildings at 3 per cent, and on machinery and plant at 5 per cent. Provide for interest on loan (one year) at 5 per cent, and as a provision for bad debts and discounts reserve 6 per cent on the balance due by customers—£1000. The value of stock at the end of year was £2040, and there was £5 of stamps on hand.

COST ACCOUNTS

A COST ACCOUNT IS A STATEMENT SHOWING ON THE DEBIT SIDE THE ACTUAL COST OF PRODUCING A CERTAIN ARTICLE OR SET OF ARTICLES, AND ON THE CREDIT SIDE THE ACTUAL PRICE RECEIVED FOR THE ARTICLE OR ARTICLES.

The ideal Cost Account is one which is kept as a part of the double-entry book-keeping. Under such a perfect system the Manufacturing or Trading Account is done away with, and its place is taken by as many departmental or separate cost accounts as there are departments or different articles manufactured.

AN ESTIMATED COST ACCOUNT IS A STATEMENT SHOWING ON THE DEBIT SIDE THE ESTIMATED COST OF PRODUCING A CERTAIN ARTICLE OR SET OF ARTICLES OF THE SAME KIND, AND ON THE CREDIT SIDE THE ESTIMATED PRICE TO BE RECEIVED FOR THE ARTICLE OR ARTICLES WHEN COMPLETED. An Estimated Cost Account is not of course a Ledger Account, and never forms part of the book-keeping of a

concern, but is prepared with the view of an estimate being given or a price quoted for the production of certain articles or the doing of certain work.

A Cost Account is prepared from the items which ordinarily appear or which may be entered in the Trading and Profit and Loss Accounts. It enables a manufacturer to see what is the cost of the material and labour expended and the profit he is earning upon each article or contract. Such Cost Accounts enable the manufacturer to see what is the average cost of labour and material, and are invaluable in preparing estimates. Without their aid a manufacturer is groping in the dark when he tries to estimate, but with their assistance he knows exactly what price he can quote for any work so as to make a certain profit. With the assistance of such Cost Accounts estimates may be prepared with absolute certainty. With the valuable knowledge obtained of the expenses of similar work the contractor can with confidence venture to quote for new contracts. All that is necessary is for the contractor to turn up his old Cost Accounts, and, having made the necessary alterations in consequence of the change in the cost of material or in the rates of wages, he can offer for the work, knowing exactly what profit it will yield him.

Each business requires to be specially considered in devising a set of Cost Accounts, and no set of forms of Cost Accounts is suitable for every business. Thus a colliery Cost Account is based on the cost of a ton of coal either brought to the surface or sold. A brickwork and slate quarry Cost Account may be based on the number of bricks and slates produced, if these are all of the same size, or by the ton.

In such a business as a printing office, where each job is, as a rule, separately "costed" with the view of the Day Book being written up, by having a Day Book with columns for the items of cost, such as paper, ink, other material, wages, other expenses, and selling price, the cost may be incorporated in the system of book-keeping by totalling these items of cost at the end of each month and crediting the accounts representing these items, and debiting Cost Account with the total cost. Thus the Wages Account

would be credited with the total wages for each month, and the Cost Account debited. There might at the end of the year be a deficiency in the Wages Account, which would represent wages not chargeable to any particular job; but taking this into account, the amount of the difference would show the degree of accuracy with which the allocations had been made. If the departments in the printing office were kept separate, it would be better to have a separate Cost Day Book for each of the separate departments.

In considering the best form of Cost Accounts to adopt it is necessary to consider what the cost consists of.

Prime cost, as its name implies, is the first cost, and may be defined as the sum expended in purchasing a complete article which is sold as purchased, or the amount expended upon raw material, together with the wages expended in producing the article. The cost is the prime cost, together with all other direct expenses of production or indirect expenses of distribution. The net profit is the difference between the selling price and the cost.

Direct expenses other than material and wages are those expenses which may be charged directly to a particular job or department of a business, such as wages of foreman, outlay for fuel, light and heat, rent and taxes of factory, insurance, and depreciation where it can be separately charged. These direct expenses are, it will be observed, largely the expenses of production.

Indirect expenses are those which cannot be directly charged to a particular piece of work or department. They are, as a rule, expenses of distribution, of financing the business, and of general control and management. They include office salaries and expenses, provision for bad debts, interest on loans and capital.

The various items of cost may be grouped shortly as follows :—

Items of Cost.

1. Material (including carriage inwards).
2. Labour.
3. Direct and departmental expenses of production :—

Wages of superintendence.
Buildings and plant :—
Light.
Heat.
Rent, taxes, and insurance.
Depreciation and upkeep.

4. Indirect expenses of distribution and general management :—

Salaries.
Office expenses.
Interest and finance.
Bad debts.

Material.

Goods purchased specially for any particular job are charged at once through the Invoice Book to that job. Other purchases of raw material are charged to the Stores Account or to the various expenses accounts. Goods given out of the stores are credited to the Stores Account, and debited to the particular job.

Labour.

As often as the wages sheets are prepared an analysis is made of the total amount paid in wages, classified according to the work upon which each workman has been engaged. The Wages Account is debited with the wages paid, and credited with the wages incurred for each different job; the Cost Account of each job being debited.

Direct and Indirect Expenses.

These, so far as not directly chargeable to each job, are charged as a percentage on the wages charged to the job, or as a percentage on the wages and material, whichever may be most suitable for the special circumstances of the business. The percentage is debited to the job, and credited to the Direct and Indirect Expenses Account. In a purely distributing business the expenses are best reckoned as a percentage of the purchase price. In a manufacturing

concern usually the percentage should be upon the wages. In colliery companies, for example, the expenses are best treated by reckoning so much per ton of coal raised or sold. When the account of each completed job is balanced off, the balance is carried to the Profit and Loss Account, and is the profit or loss upon that job.

Engineers' Accounts.

In a large engineering factory, where the raw material is manufactured into various kinds of engines or parts of engines, it is evident that a thorough system of Cost Accounts is essential for the proper management of the business. Only by knowing the exact cost which has been expended in making an engine of a certain pattern can an estimate with safety be prepared for manufacturing another engine of the same pattern.

To understand the system of keeping the accounts of a large engineering factory it is necessary first to consider briefly the work to be done. Suppose the factory is an extensive engineering factory, where the raw material is received and made into locomotives, marine and other engines, boilers, cranes, steam-hammers, and such like. To arrive at the proper method of treating the accounts of such an establishment, it is necessary to thoroughly understand the various classes of expenditure. For the purposes of accounting such engineering expenditure may be divided into the following three classes:—

I. DIRECT CHARGES OF PRODUCTION, CALLED PRIME COST. This consists of all expenditure for raw material, wages, and other expenses directly chargeable to the manufacture of the article. This expenditure is in direct proportion to the amount of the business done or to the turnover.

II. EXPENDITURE INCURRED IN THE DIFFERENT DEPARTMENTS OR SHOPS, CALLED SHOP ESTABLISHMENT CHARGES. The expenditure under this head consists of the wages of the foremen, general labourers, tool-makers, watchmen, etc., and expenditure on

power and general stores. This expenditure is less dependent upon the volume of work done than that included under prime cost.

III. GENERAL ESTABLISHMENT EXPENSES, including office expenses for clerks, salaries, stationery, etc. The salaries of the managers and chief officials, rents, rates, taxes, insurance, lighting and heating, wages of store-keeper, gate-keeper, time-keeper, messengers, upkeep and repairs of buildings and plant, trade expenses, travellers' salaries and commissions, and advertising.

The expenditure under the third head is more general and less direct than under either of the other heads, and does not depend so directly upon the volume of the work done. The turnover of the business might be doubled without any material increase in the expenditure in this department. The expenditure under the third head could not be charged to any one of the departments, but embraces them all. The ratio of the expenditure in the three branches is constantly changing, and this necessitates the keeping of the three branches separate in making up estimates.

The most important head in estimating is, of course, the prime cost. The prime cost having been calculated, the shop and general establishment charges forming the indirect expenses of production are added, to arrive at the total cost. In fixing the ratio of the indirect expenses of production which must be added to the prime cost, it is necessary to go carefully into the various ratios of indirect expenditure in the various shops or departments, and use these ratios which belong to the shops or departments concerned in the production. To take the general ratio of the indirect expenses would not in most cases be sufficiently accurate.

Provision is sometimes made for the shop establishment charges by finding the ratio which the expenditure incurred in each of the different shops bears to the wages of each shop, and provision may be made for the general establishment charges by finding the ratio which the general establishment charges bear to the whole wages paid.

Contracts not completed at date of Balance.

Care must be taken in ascertaining the profit to the date of balance on contracts not completed that future profit is not anticipated. Thus suppose a contract is for £5000, and it is estimated that the total cost of completing the work will be £4000, thus leaving a profit of £1000, or 25 per cent on the cost; then if at the date of balance £3600 has been expended on the work, the correct profit to assume up to the date of balance is £900, being 25 per cent on the outlay to date, as follows:—

Contract No.....

Dec. 31. To Material, labour, etc. . . .	£3600	Dec. 1. By Cash to account	£2500
,, Profit and Loss .	900	31. ,, Balance . . .	2000
	£4500		£4500
Jan. 1. To Balance . .	£2000	June 20. By Cash . .	£2500
June 3. ,, Material, labour, etc. . . .	400		
Dec. 31. ,, Profit and Loss .	100		
	£2500		£2500

By this means each year has its fair share of profit allocated to it.

To ascertain the Profit on the Goods Account without actually taking Stock.

It is sometimes advisable that the books of a concern should be framed so that the profit from the purchase and sale of goods may be ascertained weekly or monthly, and in businesses where a large stock is held it is desirable that the method adopted should be one which does not involve the taking of stock at each of the periods. The most satisfactory method by means of which the gross profit from the sale of goods may be ascertained is to have an

extra column in the Sales Day Book, headed "Cost." As the sales take place, and are entered in the Sales Day Book, the cost is ascertained, and is also entered. Some businesses are more suitable for the application of this method than others. A retail jeweller's business, where each article as received into stock is inventoried, numbered, and has the cost price and selling price noted upon it, is very well adapted for this method, and gives very satisfactory results. It will be observed that the balance of stock is arrived at from the Goods Sold Cost Account by debiting the purchases, and crediting the goods sold at cost price each month, and it is advisable that, at all events once a year, the stock on hand should be carefully checked to see that it corresponds with the balance shown by the Goods Sold Cost Account. To illustrate the method the following particulars may be taken :—

Goods on hand at 1st January . . . £3600

Purchases Day Book.

January.	To Goods purchased during month . .	£2000
February.	,, do. do. . .	1600
March.	,, do. do. . .	1400
		£5000

Sales Day Book.

		Cost of Goods.	Sales.
January.	By Goods sold during month .	£1760	£2200
February.	,, do. do. .	1680	2100
March.	,, do. do. .	1360	1700
		£4800	£6000

The goods on hand at 31st March are valued at £3800.

From the above particulars the Goods Account, if prepared in the ordinary way, for the quarter ending 31st March would be as follows, showing a profit of £1200 :—

Goods.

Jan. 1.	To Balance, stock on hand	£3600	0	0	Mar. 31.	By Sales	£6000	0	0
Mar. 31.	,, Purchases	5000	0	0		,, Balance, stock on hand	3800	0	0
	,, Profit and Loss	1200	0	0					
		£9800	0	0			£9800	0	0

From the above Goods Account the cost of goods sold during the quarter can be ascertained by adding to the stock on hand at the beginning of the quarter (£3600) the purchases for the quarter (£5000), and deducting the stock on hand at the end of the quarter (£3800). This gives £4800 as the cost of the goods sold during the quarter. This result is very clearly shown when, instead of keeping one Goods Account, two Goods Accounts are kept, namely, a Goods Sold Cost Account and a Goods Sold Realisation Account. These accounts for the quarter would appear in the following form:—

Goods Sold Cost Account.

Jan. 1.	To Balance	£3600	0	0	Mar. 31.	By Balance, stock on hand	£3800	0	0
Mar. 31.	,, Purchases	5000	0	0		,, Goods Sold Realisation Account, being cost of goods sold	4800	0	0
		£8600	0	0			£8600	0	0

Goods Sold Realisation Account.

Mar. 31.	To Goods Sold Cost Account, for cost of goods sold	£4800	0	0	Mar. 31.	By Sales	£6000	0	0
	,, Profit and Loss	1200	0	0					
		£6000	0	0			£6000	0	0

The accounts if kept monthly, would be as follows:—

Goods Sold Cost Account.

Jan.	1.	To Balance	£3600	0	0	Jan. 31.	By Goods Sold Realisation Account, being cost of goods sold this month	£1760	0 0
	31.	,, Purchases	2000	0	0		,, Balance	3840	0 0
			£5600	0	0			£5600	0 0
Feb.	1.	To Balance	£3840	0	0	Feb. 28.	By Goods Sold Realisation Account, being cost of goods sold this month	£1680	0 0
	28.	,, Purchases	1600	0	0		,, Balance	3760	0 0
			£5440	0	0			£5440	0 0
Mar.	1.	To Balance	£3760	0	0	Mar. 31.	By Goods Sold Realisation Account, being cost of goods sold this month	£1360	0 0
	31.	,, Purchases	1400	0	0		,, Balance	3800	0 0
			£5160	0	0			£5160	0 0

Goods Sold Realisation Account.

Jan	31.	To Goods Sold Cost Account, for cost of goods sold this month	£1760	0	0	Jan	31.	By Sales for month	£2200	0 0
		,, Profit and Loss, for gross profit for month	440	0	0					
			£2200	0	0				£2200	0 0
Feb.	28.	To Goods Sold Cost Account, for cost of goods sold this month	£1680	0	0	Feb.	28.	By Sales for month	£2100	0 0
		,, Profit and Loss, for gross profit for month	420	0	0					
			£2100	0	0				£2100	0 0
Mar.	31.	To Goods Sold Cost Account, for cost of goods sold this month	£1360	0	0	Mar.	31.	By Sales for month	£1700	0 0
		,, Profit and Loss, for gross profit for month	340	0	0					
			£1700	0	0				£1700	0 0

In the foregoing example the cost of the goods sold is got from the Sales Day Book, where, as each article is sold, its cost price is entered along with the selling price. This is the most satisfactory method of achieving the result desired, but where this course is not practicable the result may be attained by knowing the percentage of the sales which has been cost in the previous year, and assuming that the same percentage will obtain in the future. Thus, referring to the example above given, the total sales for the period under consideration amount to £6000, and the profit to £1200. The ratio of the sales which is profit is therefore 20 per cent. Assuming therefore that this ratio of profit is constant, the profit for a month or a week can be at once ascertained by taking 20 per cent of the sales. If the profit for the previous year had been at the rate of 20 per cent on the sales, it would be assumed that the same ratio would continue in the future, and the Goods Account for each month or week would be prepared on that assumption. When stock was again actually taken it would likely be found that the ratio was not actually 20 per cent of the sales, but was either more or less, and accordingly the stock shown in the books would be less or more than the stock as actually taken, and a correcting entry, crediting or debiting Profit and Loss with the difference, would require to be made.

To find the Cost Value of Goods destroyed by Fire.

Where a merchant's goods are wholly or partially destroyed by fire it is often necessary to ascertain the value of the goods destroyed from the Goods Account in the Ledger, where the books have been preserved. Thus suppose the Goods Account shows that the cost of the goods on hand at the beginning of the year and the purchases for the period up to the date of the fire was £8600, and that the cost of the goods saved, after allowing for any damage to them, was £800, and that the sales or the credit side of the Goods Account amounted to £6000. If the average percentage of the sales which was profit for the

past three years was 20 per cent, then the cost of the goods sold was 80 per cent of the sales, and the claim against the fire insurance company would be as follows :—

Cost of goods shown by debit side of Goods Account				£8600	0	0
Deduct—						
Cost of goods sold, being 80 per cent of £6000 of sales . .	£4800	0	0			
Goods salved	800	0	0			
				5600	0	0
Claim against fire insurance company .				£3000	0	0

Where the gross profit earned in previous years is not available as a basis, the general experience of the business, or the cost and selling price of a sufficient number of the articles, might be taken as the basis to arrive at the percentage of the sales which represents costs.

Exercise.

In a business where stock-taking is a laborious operation it is necessary to prepare a Goods Account at the end of January without actually taking stock. On 1st January the stock was £3000. During the month the purchases amounted to £4000, and the sales to £6000. Prepare a Goods Account on the basis that the gross profit on goods is at the rate of 25·25 per cent on the sales. What is the estimated value of stock at the close of the month ?

The Accounts of Professional and other non-manufacturing and non-trading Concerns.

The Profit and Loss Account for a professional and other non-manufacturing and non-trading concern does not as a rule require to be subdivided in the manner which we have found so advantageous in manufacturing and trading concerns, and one account is usually sufficient. Upon the credit side appears the gross income, and upon the debit all the expenditure, charges, or loss incurred. The net profit shown should be dealt with in the portion of the account dealing with profit and loss appropriation.

Exercises.

1. The following is the Trial Balance of an accountant's business:—

TRIAL BALANCE as at 31st December.

Due by clients	£3000 0 0	
Due to clients		£1500 0 0
Fees and commissions outstanding at beginning of the year	500 0 0	
Fees and commissions received during year		2000 0 0
Fees and commissions outstanding not included above, £700.		
Salaries	600 0 0	
Rent, rates, and taxes	90 0 0	
Office expenses	250 0 0	
Stationery	60 0 0	
Office furniture and fittings	200 0 0	
Capital Account	1500 0 0	3400 0 0
Bank	700 0 0	
	£6900 0 0	£6900 0 0

Prepare Profit and Loss Account and Balance Sheet.

2. John Roberts commenced business on 1st January with the following assets and liabilities:—

Cash in hand	£50 0 0
Cash at bankers	500 0 0
£10,000 consols at market price of 112½	11,250 0 0
£1000 Great Western ordinary stock at £172	1,720 0 0
Sundry debtors	600 0 0
Sundry liabilities to creditors	3,000 0 0
Loan from bankers	1,000 0 0
Bills payable	1,500 0 0

During the year John Roberts purchased a warehouse which cost £3000, and fitted the same with plant and machinery costing £2500, both of which items were paid for in cash; he purchased raw materials costing £12,000, and paid for the same, less discount at 5 per cent; he paid wages, £15,000; clerks' salaries, £2000; sundry business expenses, £900; taxes and insurance, £175; repairs to building, £100; repairs to plant and machinery, £200. He sold goods to the amount of £32,500, and received in cash on account of same £30,000.

One of his debtors failed, owing him £2000, on account of which he received a composition of 6s. 8d. in the £ (which is included in the £30,000 cash received, as above stated). He drew out of the bank £1000 for his personal expenses. He sold out his consols at £114, and his Great Western stock at £175. He discharged liabilities owing on 1st January, £3000, and paid off the loan from his bankers on 30th June, with interest at 5 per cent per annum, and he met at maturity and paid his acceptances for £1500, which were current on 1st January. On 31st December he had on hand unsold goods which cost £2000, but which for his Balance Sheet he valued as worth 90 per cent of cost.

Prepare a Profit and Loss Account for the year, and Balance Sheet, showing the position of affairs on 31st December.

3. From the following Trial Balance of the accounts of Messrs. Hardie & Allan prepare a Profit and Loss Account for the year, and Balance Sheet, after making the following provisions: bad debts, £150; discounts, on debtors' balances only, 5 per cent; and trade expenses outstanding, £50. The net profit is to be divided between the partners in proportion to the capital of each.

TRIAL BALANCE as at 30th June.

Creditors					£7,500	0 0
Bankers, overdraft					3,000	0 0
Debt on heritable property					5,000	0 0
W. Hardie, capital					13,000	0 0
T. Allan do.					7,000	0 0
Credit sales					30,500	0 0
Cash sales					4,000	0 0
Debtors	£11,500	0	0			
Cash in hand	50	0	0			
Heritable property	10,000	0	0			
Machinery and plant	2,500	0	0			
Loose tools, horses, etc.	1,550	0	0			
Stock, 1st July	15,000	0	0			
Purchases	18,500	0	0			
Carriage and freight	1,500	0	0			
Wages—labour	3,100	0	0			
Salaries and wages—office, etc.	800	0	0			
Carry forward	£64,500	0	0		£70,000	0 0

Brought forward	£64,500	0	0	£70,000	0	0
Rates and insurance	1,550	0	0			
Repairs	300	0	0			
Trade expenses	1,200	0	0			
Discounts and allowances	900	0	0			
Bad debts	200	0	0			
Bank interest and charges	250	0	0			
Interest on bond on property	200	0	0			
Partners' salaries	900	0	0			
	£70,000	0	0	£70,000	0	0

The stock at 30th June amounted to £13,000.

4. Prepare a Profit and Loss Account and Balance Sheet from the following Trial Balance of Smart & Currie's books, extracted at 31st December, covering six months' operations :—

Cash at bankers	£600	0	0			
Petty cash in hand	3	0	0			
Sales				£16,000	0	0
Goods on hand, 1st July	2,741	0	0			
Returns (customers' returns for half-year)	330	0	0			
Discount allowed customers	938	0	0			
Bills receivable on hand	200	0	0			
Sundry debtors	7,365	0	0			
Purchases	8,400	0	0			
Discount allowed on purchases				390	0	0
Wages	1,404	0	0			
Reserve for bad and doubtful debts				540	0	0
Reserve for discounts on book debts				197	0	0
Sundry creditors				1,970	0	0
Buildings	4,000	0	0			
Patent rights	50	0	0			
Loan on mortgage				4,500	0	0
Rent, rates, and taxes	100	0	0			
Advertising	460	0	0			
Traveller's salary	430	0	0			
Carriage	390	0	0			
Bad debts written off	100	0	0			
Plant and machinery	3,000	0	0			
Repairs	84	0	0			
Smart—Capital Account				6,000	0	0
Do. Drawing Account	1,200	0	0			
Currie—Capital Account				3,000	0	0
Do. Drawing Account	720	0	0			
Interest on loans	120	0	0			
Patent royalties received in advance				500	0	0
Royalties on patents attributable to half-year				40	0	0
Trade and general expenses	502	0	0			
	£33,137	0	0	£33,137	0	0

The goods on hand at 31st December are valued at £3500.

Write off 5 per cent from plant and machinery for depreciation for the half-year. No interest on capital or withdrawals is to be provided for. The profits are to be apportioned as follows:—

Smart	two-thirds.
Currie	one-third.

5. From the following Trial Balance and particulars, prepare Profit and Loss Account and Balance Sheet of Messrs. Young, Scott, & Allan, Engineers, for the year ended 31st December.

TRIAL BALANCE

Goodwill	£200 0 0	
Patents	100 0 0	
Patterns and drawings	110 0 0	
Plant and machinery	1,500 0 0	
Stock and work in progress at 1st January	1,400 0 0	
Cash at bank	600 0 0	
Cash in hand	40 0 0	
Sundry debtors	800 0 0	
Capital—Young		£1,600 0 0
Scott		900 0 0
Allan		900 0 0
Sundry creditors		230 0 0
Withdrawals Account—Young	100 0 0	
Scott	70 0 0	
Allan	60 0 0	
Discount		16 0 0
Salaries and commissions	400 0 0	
Postages and stationery	60 0 0	
Carriage and cartage	70 0 0	
Rent, rates, and taxes	150 0 0	
Insurances	17 0 0	
Advertising	25 0 0	
Repairs and renewals	70 0 0	
Gas for lighting and power	85 0 0	
Trade expenses	30 0 0	
Purchases, materials	2,500 0 0	
Do. goods	4,000 0 0	
Wages	3,800 0 0	
Sales		12,541 0 0
	£16,187 0 0	£16,187 0 0

The plant and machinery (re-valued) amounted to £1400, and the stock to £1300, on 31st December.

Make provision for discounts, £70, and write off £25 from goodwill. Credit interest on capital at 5 per cent, and debit interest on withdrawals—Young, £3; Scott, £2; and Allan, £1.

Young is entitled to half the profit, and Scott and Allan to one-fourth each.

BRITISH CURRENCY

Gold.

The unit of the coinage of the United Kingdom is the gold sovereign. By the Act 56, Geo. III., cap. 68 (22nd June 1816), one pound weight troy of gold is fixed in value at £46 : 14s. 6d., and must be in fineness 22 carats of fine gold and 2 carats of alloy. Until 1816 a guinea was the standard gold coin, £46 : 14s. 6d. being equal to $44\frac{1}{2}$ guineas. Twenty pounds troy of standard gold are coined into $934\frac{1}{2}$ sovereigns. An ounce troy of standard gold is therefore coined into £$3\frac{4}{4}\frac{2}{8}\frac{9}{0}$, or £3 : 17s. $10\frac{1}{2}$d., which is called the price of an ounce of standard gold. One ounce of pure gold on the same basis is therefore worth £4 : 4s. $11\frac{1}{2}$d.

The metric weight of all the British coins is given in the Coinage Act, 1870. The weight of the sovereign is 7·98805 grammes (123·27447 grains). The sovereign thus contains 7·3224 grammes (113·001 grains) of fine gold.

Silver.

The silver coins of this country are really token money, and are not intrinsically worth their face value. Thus the silver in one shilling is not worth one-twentieth of a sovereign. The Mint regulations prescribe that sixty-six shillings shall be coined out of a pound troy of standard silver, of the fineness of eleven ounces two penny-weights of fine silver and eighteen penny-weights of alloy in every pound weight troy; that is, sixty-six shillings are to contain 5760 grains of silver, thirty-seven fortieths fine, or 5328 grains fine. An ounce of silver coined is thus worth 5s. 6d., and a shilling weighs 87·2727 grains (5·6552 grammes). A shilling thus contains 80·727 grains, or 5·231 grammes, of fine silver. An ounce of silver uncoined is worth about 2s. $3\frac{1}{2}$d. The Government thus make a large profit out of

the silver coinage. Leaving the Mint expenses out of account, they practically buy silver at 2s. $3\frac{1}{2}$d. per ounce, and sell it for 5s. 6d.; in fact, this difference, which is termed "seigniorage," is reckoned as a fruitful source of revenue to the nation.

Bronze.

It is useful to remember that three pennies, five halfpennies, and ten farthings each weigh an ounce avoirdupois approximately. The halfpenny is one inch in diameter. Bronze coins consist of a mixture of copper, tin, and zinc. The penny weighs 145·83 grains, or 9·45 grammes. These bronze coins are also token coins, and their value as metal bears a very small ratio to their value as coins.

Legal Tender.

A tender of payment is legal if made in coins issued by the Mint, and not called in by proclamation, nor under the minimum statutory weight. Gold coins are legal tender to any amount; silver coins to forty shillings, and bronze coins to one shilling. The tender of Bank of England notes is legal in England and Wales, except by the Bank of England itself. The Bank must pay in gold if required.

INDIAN CURRENCY

According to the Indian Mint Law, the rupee must contain 165 grains of fine silver and 15 grains of alloy. Since sixty-six shillings contain 5328 grains of fine silver, a rupee, expressed in English shillings, is equivalent to

$$\frac{\frac{5328}{66}}{165} = 2\text{s. } 0\tfrac{1}{2}\text{d. (nearly).}$$

This would be the value of a rupee were silver selling at 5s. 6d. per ounce. With silver at 2s. 3d. or 2s. 4d. per ounce, as at present, and the rupee at 1s. 4d., it is evident that rupees are valued at more than 50 per cent over the value of the silver which they contain.

The report on the trade of British India with foreign countries is prepared by the Indian Statistical Bureau. The official year closes on 31st March in each year, and the statistics compiled are published as a Blue-book about the end of January in the year following. The value of the imports of India for the year 1897-98, stated in tens of rupees (Rx.) was 89,896,406, and the value of the exports Rx. 104,671,442. During the three years ending 31st March 1898, the imports and exports have been as follows :—

IMPORTS AND EXPORTS OF BRITISH INDIA

In Tens of Rupees.

	1895-96.	1896-97.	1897-98.
IMPORTS.			
Merchandise . .	Rx. 69,316,395	Rx. 71,914,697	Rx. 69,420,120
Gold	5,029,269	4,491,179	7,281,222
Silver . . .	8,329,716	8,584,174	13,195,064
Total imports .	Rx. 82,675,380	Rx. 84,990,050	Rx. 89,896,406
EXPORTS.			
Foreign merchandise re-exported . .	Rx. 4,717,516	Rx. 4,033,637	Rx. 3,751,172
Indian Merchandise .	109,545,624	99,880,660	93,786,101
Gold	2,503,317	2,200,141	2,372,733
Silver . . .	1,728,984	2,725,750	4,761,436
Total exports .	Rx. 118,495,441	Rx. 108,840,188	Rx. 104,671,442

The net import of gold during the year ending 31st March 1898, got by deducting the export from the import, amounted to 732,035 ounces, and the value to Rx. 4,908,489; and of silver to 44,284,617 ounces, and the value to Rx. 8,473,480. The receipts of both were abnormally large, more especially looking to the fact of the contraction of the export trade and the impoverishment of the country by the famine. The purchases of gold and silver were largely speculative, the rise in the rate of exchange and in the value of the price of silver, which is

shown in the table which follows, making the trade profitable. The following table gives the fluctuations in the exchange value of the rupee during the four years ending 31st March 1898, as shown by the rate in Calcutta for bank bills on demand.

EXCHANGE VALUE OF RUPEE IN PENCE

Year.	Highest.	Lowest.	Difference per cent.
1894-95	13, 13-16d.	12, 13-32d.	10·18
1895-96	14, 13-16d.	13, 3-32d.	11·60
1896-97	15, 21-32d.	13, 25-32d.	11·97
1897-98	16, 1-16d.	14, 9-32d.	11·09

The last column shows that the fluctuations have been very large, but comparatively regular in extent, the average difference between the highest and lowest values in each year being slightly over 11 per cent.

Simultaneously with the rise in the gold value of the rupee there was a great fall in the gold price of silver, as shown below:—

	1896-97.		1897-98.	
	Highest.	Lowest.	Highest.	Lowest.
Bombay . . .	R. 96¼	R. 82	R. 82¼	R. 66½
London . . .	31⅝d.	28, 5-16d.	28½d.	23⅝d.

UNITED STATES CURRENCY

The United States standard coin is an eagle, or ten-dollar piece, consisting of 258 grains, or 16·71818 grammes of gold, nine-tenths fine. A golden eagle thus contains 232·2 grains, or 15·0464 grammes, of fine gold. Since £1 = 123·27447 grains of standard gold, twenty-two twenty-fourths fine, the pure gold in £1 is equal to, expressed in dollars, 4·86656, as follows:—

$$£1 = \frac{123{\cdot}27447 \times \frac{22}{24}}{\frac{258}{10} \times \frac{9}{10}} = \$4{\cdot}86656.$$

Equal to 49·32 pence for one dollar.

The silver dollar weighs 412·5 grains, or 26·729 grammes, of nine-tenths fine, and therefore contains 371·25 grains, or 24·0561 grammes, of fine silver.

FRENCH CURRENCY

By the French Mint Law 155 twenty-franc pieces are coined from one kilogramme of gold, nine-tenths fine. Since £1 contains 7·988 grammes of gold twenty-two twenty-fourths fine, the pure gold in £1 is $= \left(7{\cdot}988 \times \frac{22}{24}\right)$ grammes $= 7{\cdot}322$ grammes. A franc contains in pure gold $\left(\frac{1}{155 \times 20} \times \frac{9}{10}\right)$ 1000 grammes $= {\cdot}29032$ grammes. Dividing the pure gold in a sovereign by the pure gold in a franc, we find that

£1 = 25·225 francs.

Equal to 9½d. for one franc.

The Monetary Union between France, Belgium, Switzerland, and Italy was formed in 1865, and was joined by Greece in 1868. These countries have their gold and silver coins of the same weight and fineness. The same system is followed in Finland, Roumania, Servia, and Spain, and partially in several of the South American Republics.

GERMAN CURRENCY

The mark is the unit of the German monetary standard established by the law of 4th December 1871. There are gold pieces of twenty, ten, and five marks each, called respectively doppel-krone, krone, and halbe-krone. In a ten-mark piece the fine gold weighs 3·5842 grammes.

The Mint par between this country and Germany is therefore—

£1 = M. 20·42945,
or
M. 20 = 19s. 6·95d.
M. 1 = 11¾d.

The thaler is equal to three marks.

The Arithmetic of the Exchanges.

The questions relating to exchange are best solved by the elementary rules of arithmetic. The following are given as examples:—

Find the sterling equivalent for Fr. 1674·25 at 25·22½.

We require to divide 1674·25 by 25·225. The simplest way is to multiply the divisor and dividend by 4 to simplify the division, and divide out by contracted division, as follows:—

25·225	1674·25
4	4
100·900	6697·00

100,900)6697000·(66·3726
605400
643000
605400
37600
30270
7330
7063
267
202
65
60

Answer, £66 : 7s. 5¾d.

If the gold premium in Buenos Ayres is at 119·50, what discount does the paper dollar stand at?

If gold is at par, 100 $ paper = 100 $ gold. If at 119·50 premium, then 219·5 $ paper = 100 $ gold.

$$1\ \$\ \text{paper} = \frac{100}{219{\cdot}5} = 1\ \$\ \text{gold},$$

$$\text{and the discount} = \frac{119{\cdot}5}{219{\cdot}5} = {\cdot}544,$$

which is equal to 54·4 per cent.

FOREIGN MONEYS

I. *Gold Coins.*

Country.	Gold Coins.	Weight in Grains.	Value in Sterling.
Belgium, France, Greece, Italy, Switzerland (The Latin Union)	10 Francs, 10 Francs, 10 Drachmai, 10 Lire, 10 Francs	49·78	£0 7 11¼
Finland, Roumania, Servia, Bulgaria	10-Marka piece, 10 Leys, 10 Dinars, 10 Leva		
Spain	Doubloon of 10 escudos	129·43	1 0 7½
,,	25-Peseta piece	124·46	0 19 10
Russia	Imperial of 15 roubles	199·10	1 11 9
Argentine Republic	Argentino, or 5-peso piece	124·44	0 19 10
Austria-Hungary	Ducat	53·85	0 9 4
,,	8 Florins, or gulden	99·57	0 15 10½
,,	10-Krone piece	52·28	0 8 4
Brazil	10 Milreis	138·35	1 2 5½
Chili, Columbia, Uruguay	Doubloon, or 5-peso piece	117·70	0 18 9
China			
Denmark	10-Krone piece	69·14	0 11 0¼
Egypt	100-Piastre piece (E£)	131·18	1 0 3½
German Empire	Krone of 10 reichsmarks	61·40	0 9 9½
Great Britain	Sovereign of 20 shillings	123·27	1 0 0
Holland and Java	Ducat	53·92	0 9 4½
,,	10-Florin piece	103·71	0 16 6¼
India	Mohur of 15 rupees	180·00	1 9 2½
Japan	20-Yen piece	257·21	2 0 11¾
Mexico	10-Peso piece	261·12	2 0 5¼
Netherlands—*see* Holland.			
Norway and Sweden—*see* Denmark.			
Persia	Toman of 200 shâhîs	57·90	0 9 5
Peru and Venezuela	10-Sol piece	248·91	1 19 7¾
Portugal	Corôa of 10 milreis	273·70	2 4 4¾
Tunis	10-Piastre piece	30·09	0 4 9½
Turkey (Ottoman Empire)	Turkish pound of 100 piastres	111·36	0 18 0¾
United States	Eagle of 10 dollars	258·00	2 1 1¼
Uruguay—*see* Chili.			

II. *Silver Coins.*

Country.	Silver Coins.	Weight in Grains.	Equivalent Weight of Standard Silver in Troy Ounces.
Belgium	1 Franc of 100 centimes		
France	1 Franc of 100 centimes		
Greece	1 Drachma of 100 lepta		
Italy	1 Lira of 100 centesimi	77·2	0·145
Switzerland	1 Franc of 100 centimes		
Roumania	1 Ley of 100 banis		
Servia	1 Dinar of 100 paras		
Bulgaria	1 Leva of 100 stotinkis		
Spain	5-Peseta piece	385·8	0·782
	Peseta of 100 centimos	77·2	0·145
Russia	Rouble of 100 kopecks	308·6	0·626
	Tchetvertak, or ¼-rouble	77·1	0·156
Argentine Republic	Peso of 100 centesimos	385·8	0·782
Austria-Hungary	Florin, or gulden of 100 kreutzer	190·5	0·386
	Krone of 100 hellers	77·2	0·144
Brazil	1 Milreis of 1000 reis	196·8	0·406
Chili, Columbia, Uruguay	1 Peso of 100 centavos	385·8	0·782
China	Tael of 10 mace, or 100 candarin, or 1000 cash	583·3	1·288
Denmark	1 Krone of 100 öre	115·7	0·209
Egypt	1 Piastre	21·6	0·041
Finland	1 Marka of 100 penni	80·0	0·156
German Empire	1 Reichsmark, or mark of 100 pfennige	85·7	0·174
Great Britain	Crown of 5 shillings	436·4	0·909
	Shilling of 12 pence	87·3	0·182
Holland and Java	Rixdaler of 2½ florins	385·8	0·821
	Florin of 100 cents	154·3	0·328
India	Rupee of 16 annas, 64 pice, or 192 pies	180·0	0·372
Japan	1 Yen of 100 sen	416·0	0·843
Mexico	1 Peso of 100 centavos	417·8	0·849
Netherlands—*see* Holland.			
Norway and Sweden—*see* Denmark.			
Persia	Khran of 20 shâhîs	71·0	0·142
Peru and Venezuela	Sol of 10 dineros of 100 cents	385·8	0·782
Portugal	Teston of 100 reis	31·6	0·080
Tunis	Piastre	46·7	0·098
Turkey (Ottoman Empire)	1 Piastre of 40 paras	18·6	0·035
United States	Trade dollar	420·0	0·851
	Dollar of 100 cents	412·5	0·836
	½-Dollar of 50 cents	192·9	0·391
Uruguay—*see* Chili.			

FOREIGN CURRENCIES

AND THEIR TREATMENT IN HOME ACCOUNTS

It is of very great importance that concerns having their head office in this country, but which practically do all their business in foreign countries, or which have branches in foreign countries, should convert the transactions which take place in the various local currencies into pounds sterling on a correct basis, with the view of these transactions being recorded in the Home Book and being submitted in the annual Abstract of Accounts to the proprietors of the business. The low rate of interest obtainable in this country has induced many large corporations, such as insurance companies, to invest their money abroad, and it is of the utmost importance that sound principles should be adopted in incorporating these transactions in the Home Books. Many companies are suffering to-day from the effect of erroneous principles having been adopted as the basis of converting their transactions in foreign currencies into pounds sterling, and some concerns are still pursuing these erroneous principles and putting off the evil day, which is sure to come, when they will have to write down investments in foreign countries to such a large amount as will shake public confidence in them. Had sound principles of accounting been adopted, these investments would have appeared each year in the Balance Sheet at their true market value, and no drastic readjustment of values would have been required.

A method often adopted is to embody periodically in the Home Accounts in pounds sterling the abstract statements received from foreign countries at the par rate of exchange, but this par rate is not a fixed factor. Different nations have different bases upon which their currency is founded. Some, like our own country, have gold, others silver, some both of these metals, and others unfortunately have a paper currency. A gold basis has given the best results in the

past. A gold currency does not fluctuate so much as one based upon silver. Between two countries both using a gold standard the variations in the rate of exchange are comparatively slight, and are caused by the demand for money varying. Between such countries the par basis of conversion is usually sufficiently correct to be adopted in the connection we are considering. Thus the par rate between this country and the United States is that £1 is equivalent to $4·86656—or, expressed simply, the gold in 100,000 sovereigns could be made into 486,656 dollars. That this theoretical value is sufficiently correct to use for most practical purposes is shown by the fact that a bill for £1000 payable on demand in New York realises about $4867, more or less, according to the demand for money in America. Even if the coinage of the whole world was on a gold basis, there would be a difference in the rate of exchange due to the laws of demand and supply. If America had the same currency as we have, and in consequence of the balance of trade and other transactions requiring America to remit money here, then £1000 payable in this country would be worth more to an American than £1000 payable in America would be worth to us, simply on account of the demand for money payable here being keener.

As an example of transactions between this country and a country having a silver currency, suppose an insurance company has investments in India. The interest on these investments will be paid in rupees, and instead of being remitted home may be re-invested in India. If these Indian investments are valued at the nominal par rate of exchange, namely 2s. for each rupee, the Balance Sheet of the company is altogether misleading, and the Profit and Loss Account shows a profit which has not been earned. Thus, if the Balance Sheet was prepared at a time when the rupee was at 1s. 3d., and the Indian investments amounted to 3,200,000 rupees, then the value of these investments at 2s. for each rupee would be £320,000, whereas according to the market value these investments are worth, taking the rupee at 1s. 3d., £200,000, so that the Balance Sheet would show the assets too much by £120,000, and the

balance of profit shown by the Profit and Loss Account would be overstated to the same extent. A convenient way to accomplish the same end, instead of writing down the Indian investments, is to have an "Exchange Fund to reduce Indian investments to their actual value as measured by the ruling market rate of exchange on date of balance." This exchange fund would appear as a liability, and would be formed by debiting the Profit and Loss Account with the loss due to currency depreciation.

A company in this country, therefore, having either their assets or liabilities in a silver country must reduce these assets or liabilities to pounds sterling at the rate of exchange ruling in the market at the date of the balance. So far as this country is concerned, the currency of a silver country is simply merchandise, and must be valued on the same principles as those upon which we would take stock.

Consider next the case of a paper currency. In this country £1000 in notes is supposed to be of the same value as £1000 in gold, but most of us would set more value upon the paper, and if we got our choice would prefer the £1000 to be in notes, as it would be so much more easily counted, handled, or transmitted. But in a country with a paper currency—that is, where the Government have declared that the paper notes issued by them shall be taken as legal tender—gold always commands a premium, or, as it might be better expressed, the paper currency is almost always at a discount, and fluctuations are always occurring according as the credit of the Government goes up and down. These fluctuations in such countries as the Argentine Republic are very great, and practically reduce trade and business to a speculation on the rise and fall of the paper currency. Any one in such a country who incurs monetary obligations may find that within a month he has to pay double or three times what he had intended, in consequence of an alteration in the currency.

Suppose a company having investments in the Argentine Republic were to convert these investments at the par basis of exchange, which is $5·04, equal to £1. Such a Balance Sheet would be altogether misleading. The correct method

is to take the actual rate of exchange ruling at the date of the Balance Sheet. Suppose, for example, that at the date of the Balance Sheet the ruling rate of exchange was 250—that is, gold was at a premium of 150—then £1, far from being equal to $5·04, would be worth very much more expressed in dollars, namely, $5·04 × 2·50 = $12·6. $5·04, instead of being equivalent to £1, would be equal to 8s.

Foreign Branches.

Where there are branches of a business in foreign countries, and the books of these branches are kept in the currency of the country where the branch is, the Trial Balance sent home will be in the currency of that country, and the first thing which must be done with each item is to convert it into sterling. The rate of exchange between this country and other countries is continually changing, and it is often difficult to determine the rate of exchange at which the conversion should be made. The best plan seems to be to adopt various rates of exchange, according to the nature of the entry in the Trial Balance.

Rules for the Conversion of Foreign Currencies.

1. The items which make up the Head Office Account in the Branch Ledger should be taken at the actual figures which were current at the time the transactions took place—that is, the conversion will be made by substituting the balance shown in the Head Office Ledger, which is in sterling, for the balance shown in the Branch Trial Balance in the foreign currency.
2. Profit and loss items representing transactions which have taken place during the period covered by the accounts should be taken at the average rate of exchange ruling during the period covered by the transactions.
3. Floating currency assets and liabilities at the rate of exchange current at the date of balancing the books, as that is their actual value.
4. Fixed assets and liabilities should be taken in the first instance at the rate of exchange ruling when they were incurred, but care should be taken that full allowance is made for any depreciation in value.

It is quite evident that if different rates of exchange are used in converting the items in a foreign Branch Trial Balance into sterling the totals of the two sides when so converted will not agree. The difference should be entered as either loss on exchange or profit on exchange, as the case may be. The following may be taken as the Trial Balance of a branch sent home from India :—

TRIAL BALANCE OF INDIAN BRANCH as at 31st March.

Stock on hand at 1st January	Rs.	8,000	
Purchases for period		20,000	
Sales for period			40,000
Customers' Accounts		60,000	
Creditors' Accounts			35,000
Bills receivable		5,000	
Bills payable			11,800
Wages and salaries		1,000	
General charges		800	
Rent, rates, and insurance		2,000	
London office			11,500
Cash in bank		1,000	
Cash on hand		500	
	Rs.	98,300	98,300

The stock on hand at 31st March is valued at Rs. 4000.

The above Trial Balance is forwarded to the head office in London, and in order to include it in the firm's State of Accounts at 31st March it must be converted into English money.

The rate of exchange at 31st March is 14, which means that the rupee is worth 1s. 2d. The average rate of exchange for the three months is 15, and the rate of exchange at 1st January was 16. The ratio of the rupee to the sovereign has been fixed at 15 to 1, thus giving it a value of 1s. 4d. It must be noted, however, that the Indian exchange is always quoted in sterling per rupee as on p. 301, and for book-keeping purposes it will be found most convenient to express this sterling value in pence. Using these rates, therefore, and following out the rules given for converting the various items into English money, the Trial Balance will be as follows :—

TRIAL BALANCE OF INDIAN BRANCH as at 31st March (converted into English money).

Rate of Exchange taken.								
16	Stock on hand at 1st January	£533	6	8				
15	Purchases for period	1250	0	0				
15	Sales for period				£2500	0	0	
14	Customers' Accounts	3500	0	0				
14	Creditors' Accounts				2041	13	4	
14	Bills receivable	291	13	4				
14	Bills payable				688	6	8	
15	Wages and salaries	62	10	0				
15	General charges	50	0	0				
15	Rent, rates, and insurance	125	0	0				
—	London office (balance as appearing in London books)				718	4	6	
14	Cash in bank	58	6	8				
14	Cash on hand	29	3	4				
		£5900	0	0	£5948	4	6	
	Loss on exchange	48	4	6				
		£5948	4	6	£5948	4	6	

From the above it will be seen that after converting the rupees into English money the credit side is greater to the extent of £48 : 4s. 6d. This balance is carried to the debit of the Profit and Loss Account as "Loss on exchange."

The balance of Rs. 11,500 due to the London office as appearing in the Trial Balance of the Indian branch is taken as £718 : 4s. 6d. when converting the rupees into English money, as that is the figure appearing in the books at London, where each cash transaction with the Indian branch is recorded as it takes place.

The various Methods of treating Transactions in Rupees in the Home Accounts illustrated.

To illustrate the treatment of rupees the following transactions of Thomas Ross, an Indian merchant having a warehouse in London, may be taken :—

TRANSACTIONS OF INDIAN MERCHANT

Date.	Ruling Rate of Exchange.		
Jan. 1.	16 1/16	Cash belonging to Thomas Ross, Merchant, of London and Calcutta	£5,000
2.	16	Remitted to representative in Calcutta	1,000
		Purchased for cash and sent to India, goods for	1,000
14.	15½	Do. do.	1,000
28.	15 1/16	Do. do.	1,000
Mar. 1.	15	Sold goods for cash in India	Rs. 20,000
14.	14½	Do. do.	Rs. 20,000
28.	14 1/16	Sold goods to Blake & Co. in India on credit	Rs. 20,000
		Remitted to London	Rs. 40,000
31	14	Goods on hand in India at cost	£900
		Expenses of Indian office paid during quarter	Rs. 10,000
		Paid expenses of London office for quarter	£200

The average rate of exchange may be taken as 15. It is required to show the profit on the consignment, the Profit and Loss and other Accounts, and the Balance Sheet at 31st March, as they should appear in the London books.

FIRST METHOD

Cash Transactions only recorded in London Books.

If the rise and fall in the price of the rupee be ignored altogether, except in connection with actual cash transactions and the balance at 31st March, the transactions might be recorded in the London books as follows:—

Notes.

Rs. 20,000 at 14	=	£1166	13	4
Rs. 40,000 at 14 1/16	=	2343	15	0
Rs. 10,000 at 15	=	625	0	0
Rs. 5,000 at 14	=	291	13	4

To find the rupees due by the Calcutta representative, it is necessary to have an account for him in rupees as follows:—

Calcutta Representative.

Jan.	2.	To London office	Rs. 15,000	Mar. 28.	By London office	Rs. 40,00
Mar.	1.	,, Sales	20,000	31.	,, Expenses	10,00
	14.	,, do.	20,000		,, Balance	5,00
			Rs. 55,000			Rs. 55,00

The Ledger Accounts in the books in London would be as follows :—

LEDGER

Cash Account.

Jan.	1.	To Capital Account	£5000	0	0	Jan.	2.	By Calcutta house	£1000	0
Mar.	28.	,, Calcutta house	2343	15	0			,, do.	1000	0
							14.	,, do.	1000	0
							28.	,, do.	1000	0
						Mar.	31.	,, Profit and Loss expenses	200	0
								,, Balance	3143	15
			£7343	15	0				£7343	15

Calcutta House.

	Jan.	2.					Mar.	28.		
To	Cash		£1000	0	0	By	Cash		£2343	15
,,	do.		1000	0	0		Mar.	31.		
	Jan.	14.				,,	Profit and Loss, for expenses		625	0
,,	Cash		1000	0	0	,,	Balances :—			
	Jan.	28.					Cash due by agent in India (Rs. 5000 at 14)	£291 13 4		
,,	Cash		1000	0	0		Due by Blake & Co. (Rs. 20,000 at 14)	1166 13 4		
	Mar.	31					Goods unsold at cost	900 0 0		
,,	Profit and Loss		1327	1	8				2358	6
			£5327	1	8				£5327	1

Profit and Loss Account.

Mar.	31.	To Calcutta house, expenses in India	£625	0	0	Mar.	31.	By Calcutta house	£1327	1
		,, Cash, expenses in London	200	0	0					
			£825	0	0					
		,, Capital (net profit)	502	1	8					
			£1327	1	8				£1327	1

Capital Account.

r. 31. To Balance . . .	£5502	1	8	Jan. 1. By Cash . . .	£5000	0	0
				Mar. 31. ,, Profit and Loss .	502	1	8
	£5502	1	8		£5502	1	8

BALANCE SHEET as at 31st March.

Liabilities.				*Assets.*			
pital	£5502	1	8	Cash in London	£3143	15	0
				Cash due by representative in India	291	13	4
				Blake & Co., India . .	1166	13	4
				Goods in India . . .	900	0	0
	£5502	1	8		£5502	1	8

By the above method of treatment it will be observed that only the actual cash transactions are entered in the London books and at the period of balancing, the assets so far as in India have been converted into sterling at the rate of exchange ruling on the day of balance, with the exception of the goods, which have been taken at their cost price in sterling.

SECOND METHOD

All Transactions recorded and converted at rate of Exchange ruling when Transactions took place.

If each transaction is recorded as it takes place, and the conversion is made at the rate of exchange ruling on the day when the transaction took place, the effect of changes in the rate of exchange is seen. The assumption is thus made that when a merchant purchases goods for export to India he expects that the rate of exchange will remain the same, and by this method the merchant tells at once what portion of his loss or profit is due merely to the rate of exchange rising or falling.

Ledger

Cash.

Jan. 1.	To Capital Account	£5000	0	0	Jan. 2. By Calcutta house	£1000	0
Mar. 28.	,, Calcutta house	2343	15	0	,, Consignment	1000	0
					14. ,, do.	1000	0
					28. ,, do.	1000	0
					Mar. 31. ,, Expenses (London)	200	0
					,, Balance	3143	15
		£7343	15	0		£7343	15

Calcutta House.

	Rs.	Exchange.	£	s.	d.		Rs.	Exchange.	£	s.
Jan. 2.						Mar. 28.				
To Cash	15,000	16	1000	0	0	By Cash	40,000	$14\frac{1}{16}$	2343	15
Mar. 1.						,, Expenses for				
,, Consignment	20,000	15	1250	0	0	quarter	10,000	15	625	0
Mar. 14.						Mar. 31.				
,, Consignment	20,000	$14\frac{1}{2}$	1208	6	8	,, Balance	5,000	14	291	13
						,, Exchange, loss			197	18
	55,000		3458	6	8		55,000		3458	6

Consignment Account.

		£	s.	d.		Rs.	Exchange.	£	s.
Jan. 2.	To Cash	1000	0	0	Mar 1. By Calcutta house	20,000	15	1250	0
14	,, do.	1000	0	0	14. ,, do.	20,000	$14\frac{1}{2}$	1208	6
28	,, do.	1000	0	0	28. ,, Blake & Co., Calcutta	20,000	$14\frac{1}{16}$	1171	17
Mar. 31.	,, Profit and Loss	1530	4	2	31. ,, Balance (cost price of goods unsold)			900	0
		4530	4	2				4530	4

Blake & Co., Calcutta.

	Rs.	Exchange.	£	s.	d.		Rs.	Exchange.	£	s.	d.
Mar. 28.						Mar. 31.					
To Consignment	20,000	$14\frac{1}{16}$	1171	17	6	By Balance	20,000	14	1166	13	4
						,, Exchange, loss			5	4	2
			1171	17	6				1171	17	6

Exchange Account.

Mar. 31. To Calcutta house	£197	18	4	Mar. 31. By Profit and Loss	£203	2	6
,, Blake & Co.	5	4	2				
	£203	2	6		£203	2	6

Thomas Ross, Capital Account.

Mar. 31. To Balance	£5502	1	8	Jan. 1. By Cash	£5000	0	0
				Mar. 31. ,, Profit and Loss	502	1	8
	£5502	1	8		£5502	1	8

Expenses.

	Rs.	Exchange.	£	s.	d.		£	s.	d.
Mar. 31.						Mar. 31.			
To Calcutta house	10,000	15	625	0	0	By Profit and Loss	£825	0	0
,, Cash (London)			200	0	0				
			825	0	0		£825	0	0

Profit and Loss Account.

Mar. 31. To Expenses	£825	0	0	Mar. 31. By Consignment	£1530	4	2
,, Exchange, loss	203	2	6				
	£1028	2	6				
,, Capital (net profit)	502	1	8				
	£1530	4	2		£1530	4	2

The Balance Sheet is the same as by the first method.

From the Profit and Loss Account the merchant learns that the adverse fluctuations in the value of the rupee have cost him £203 : 2s. 6d.

Third Method

Conversion at Average rate of Exchange.

If all the transactions, except cash transactions, between the two countries are converted into sterling at the average

rate of exchange during the period such transactions took place, and the balances at the close of the period are converted at the rate of exchange ruling on that date, the loss on exchange is greater although the net profit is brought out the same.

Cash Account.

Jan. 1.	To Capital . .	£5000	0	0	Jan. 2.	By Calcutta house .	£1000	0	0
Mar. 28.	,, Calcutta house .	2343	15	0		,, Consignment .	1000	0	0
					14.	,, do. .	1000	0	0
					28.	,, do. .	1000	0	0
					Mar. 31.	,, Profit and Loss expenses (London) .	200	0	0
						,, Balance . .	3143	15	0
		£7343	15	0			£7343	15	0

Calcutta House.

	Rs.	Exchange.	£	s.	d.		Rs.	Exchange.	£	s.	d.
Jan. 2.						Mar. 28.					
To Cash . .	15,000	16	1000	0	0	By Cash . .	40,000	$14\frac{1}{16}$	2343	15	0
Mar. 1.											
,, Consignment .	20,000	15	1250	0	0	,, Profit and Loss expenses (India) .	10,000	15	625	0	0
Mar. 14.						Mar. 31.					
,, Consignment .	20,000	15	1250	0	0	,, Balance .	5,000	14	291	13	4
						,, Exchange, loss . .			239	11	8
	55,000		3500	0	0		55,000		3500	0	0

Consignment Account.

		£	s.	d.			Rs.	Exchange.	£	s.	d.
Jan. 2.	To Cash . . .	1000	0	0	Mar. 1.	By Calcutta house	20,000	15	1250	0	0
14.	,, do. . . .	1000	0	0		,, do. .	20,000	15	1250	0	0
18.	,, do. . . .	1000	0	0	28.	,, Blake & Co. .	20,000	15	1250	0	0
Mar. 31.	,, Profit and Loss .	1650	0	0	31.	,, Balance (cost price of goods unsold)			900	0	0
		4650	0	0					4650	0	0

Blake & Co., Calcutta.

	Rs.	Exchange.	£	s.	d.		Rs.	Exchange.	£
Mar. 28. To Consignment .	20,000	15	1250	0	0	Mar. 31. By Balance . . ,, Exchange, loss	20,000	14	1166 83
			1250	0	0				1250

Exchange Account.

Mar. 31. To Calcutta house . .	£239	11	8	Mar. 31. By Profit and Loss . .	£322	1
,, Blake & Co. . .	83	6	8			
	£322	18	4		£322	1

Profit and Loss Account.

	Rs.	Exchange.	£	s.	d.		£
Mar. 31. To Calcutta house, expenses .	10,000	15	625	0	0	Mar. 31. By Consignment	£1650
,, Cash, expenses in London .			200	0	0		
			825	0	0		
,, Exchange, loss			322	18	4		
			1147	18	4		
,, Capital (net profit) . .			502	1	8		
			1650	0	0		£1650

THE FOREIGN EXCHANGES

The foreign exchanges are the means by which the indebtedness of commercial nations is discharged. The theory of the foreign exchanges deals with the principles upon which foreign bills are drawn, dealt in, and settled. The foreign exchanges are founded on the trade of

this country with other countries. The imports of this country amount to about £450,000,000, and the exports to £300,000,000. Besides the trade of the country there are other causes of indebtedness which require to be settled. Thus loans may be granted to the governments or individuals of foreign countries, and the settlement of these loans with interest upon them will be effected by means of the exchange between the two countries.

The theory of the foreign exchanges may be very simply illustrated, and is not difficult to understand.

Thus, suppose that X is an importer and Y an exporter in New York, and that A is an importer and B an exporter in London, and that Y sends goods to A, and B sends goods to X, to the value of £1000. The result of these transactions, which is shown on the diagram, is that X is due B £1000, and A is due Y £1000, and to settle their indebtedness X would require to ship £1000 in gold from New York to London, and A would require to ship £1000 in gold from London to New York. To save the expense of this shipment of gold, all that is necessary is for X to hand his neighbour Y in New York £1000 in gold, and for A to hand his neighbour B in London the £1000 in gold. This may be effected in various ways. The usual way is for Y to draw a bill on A and transfer it to X by endorsement, receiving the £1000 or its exchange equivalent from him for it. X sends the bill to B in payment of his debt, and B collects the cash from A, thereby satisfying all parties. This illustrates the essence of the transaction, but in practice the course adopted would differ in respect that the parties would have no direct dealings, they would deal through the bankers with the same ultimate result. The debt of A in London is "drawn for" by his New York creditor, and the debt due to B in London is "remitted for" by his New York debtor. The majority of transactions with this country are so settled. The following diagram, in which the principle of Ledger Accounts is utilised, shows the whole transaction very clearly:—

Foreign Exchanges Diagram

NEW YORK.				LONDON.			
X, importer.		Y, exporter.		A, importer.		B, exporter.	
Dr.	*Cr.*	*Dr.*	*Cr.*	*Dr.*	*Cr.*	*Dr.*	*Cr.*
Receives goods from B.		Sends goods to A.		Receives goods from Y.		Sends goods to X	
To B.			By A.	To Y.			By X.
		Draws upon A, and endorses the bill to X in exchange for its value.					
Pays cash to Y for bill, and sends bill to B.						Receives bill from and gets the from A.	
				Pays B cash for bill.			
	By Y.	To X.			By B.	To A.	

The result would have been the same if, instead of Y drawing upon A, B had drawn upon X. In this case the settlement would have been effected as follows :—

B draws upon X.
B receives cash from A, to whom he gives the bill.
A sends the bill to Y.
Y receives the bill, and gets cash from X in extinction of it.

It has been supposed in this illustration that the indebtedness is of the same amount. If it is different, gold must be exported by the country having most to pay.

In consequence of the stability of our currency, and the fact that London is the centre of exchange, and from other causes, it is more usual for foreign bills to be drawn on London than for the exporter here to draw bills on his

foreign customers. The exchange therefore is practically done by means of bills drawn abroad and accepted and paid in London, and bills received from abroad and collected in London.

Mint Par.

The Mint par of exchange, sometimes called the par of exchange, is the intrinsic value of the currency unit of one country expressed in terms of the currency unit of another country using the same metal as the standard of exchange. There is thus no fixed Mint par of exchange between two countries having different metals as their standards where these metals vary in value.

The most important pars are the following:—

France, francs 25·22½.
Germany, Marks 20·43.
United States, dollars 4·86⅔.

The Course of the Exchanges.

The rate of exchange between this country and other countries would normally be the ratio which their standard coins bear to ours intrinsically, but on account of the variations in the indebtedness of the countries to one another with the consequent variations in the demand for and supply of bills to settle that indebtedness, together with other less potent influences, the course of the exchanges between the countries is continually fluctuating. Cheques and sight bills are known as the Short Exchange, and their price fluctuates with the balance of indebtedness; the Long Rate is the short rate plus interest to the date of maturity of the bill. Each day the *Times*, the *Scotsman*, and other papers publish a statement of the rates of exchange which were current the day preceding. The following is such a statement, the words in italics having been added to explain the figures.

THE EXCHANGES

LONDON, Tuesday Evening, 29th August 1899.

The following are the rates of exchange on London, cabled from the chief commercial centres :—

	To-day.	Previous	
Paris, cheques	25·24	25·24	*francs and centimes per £.*
Brussels, cheques	25·29½	25·30	*do.*
Geneva, sight	25·36½	25·36½	*do.*
Berlin, cheques	20·47¼	20·47¼	*reichsmarks and pfennigs per £.*
Vienna, sight	12·06¼	12·06	*florins and kreuzers per £.*
Amsterdam, sight	12·10¼	12·10¼	*guilders and stivers per £.*
Italy, sight	27·13	27·14	*lire and centesimi per £.*
Athens, sight	38·40	38·40	*drachmai and lepta per £.*
Madrid, sight	Nom.	Nom.	*(usually quoted in pence per peseta)*
Lisbon, sight	36⅝d.	36½d.	*pence per milreis*
St. Petersburg, 3 months	93·80	93·90	*roubles per £10.*
Rio, ninety days	8d.	8d.	*pence per milreis.*
Valparaiso, ninety days	15¼d.	15 19 32d.	*pence per peso.*
Argentine gold premium	126·00	126·80	*see page 282.*

The rates telegraphed from the East were :—

	To-day.	Previous.	
Bombay teleg. trans.	1s. 3 31-32d.	1s. 3 31-32d.	*per rupee.*
Calcutta do.	1s. 3 31-32d.	1s. 4d.	*do.*
H.-Kong, 4 mos.' bills	1s. 11 11-16d.	1s. 11 11-16d.	*per dollar.*
Do., teleg. transfers	1s. 11⅛d.	1s. 11⅛d.	*do.*
Shanghai, 4 mos.' bills	2s. 8⅛d.	2s. 8⅛d.	*per tael.*
Do., teleg. transfers	2s. 8¼d.	2s. 8¼d.	*do.*
Yokohama, 4 mos.' bills	2s. 0 11-16d.	2s. 0 11-16d.	*per dollar.*
Do., teleg. transfers	2s. 0⅛d.	2s. 0⅛d.	*do.*
Singapore, 4 mos.' bills	1s. 11 15-16d.	2s. 0d.	*do.*
Manila, 4 mos.' bank bills	2s. 0¼d.	2s. 0¼	*do.*

The rates for merchants' bills on the East were :—

	To-day.	Previous.	
India, 30 days	1s. 3 13-16d.	1s. 3 13-16d.	*per rupee*
Hong-Kong, 60 days	1s. 11d.	1s. 11d.	*per dollar.*
Shanghai, 60 days	2s. 7⅛d.	2s. 7⅛d.	*per tael.*
Straits, 60 days	1s. 11⅛d.	1s. 11⅛d.	*per dollar.*
Japan, do.	2s. 0⅛d.	2s. 0⅛d.	*do.*

INCOME TAX

Under the Income Tax Acts persons with incomes beyond £160 per annum have to pay tax on their net income. The tax is to a certain extent graduated, and the following table shows the abatements allowed :—

INCOME TAX TABLE OF EXEMPTION AND ABATEMENT

Income		Abatement.
Exceeding.	Not Exceeding.	
	£160	Exempt.
£160	400	£160
400	500	150
500	600	120
600	700	70

The Government year closes on 5th April, and the income tax is charged for the year ending on that date.

For the purposes of the Income Tax Acts incomes are classified under five Schedules, according to the various sources from which they are derived, as follows :—

Schedule A. Ownership of land and buildings.
.. B. Occupation of land.
.. C. Interest out of public funds, etc.
.. D. Profits of trade.
.. E. Salaries, etc., payable out of the public revenue or by public companies.

Schedule A.

Under Schedule A is taxed all income from the ownership of land and other heritable property in the United Kingdom. It is the owner's tax, and is ultimately paid by the landlord.

One of the leading principles in the levying of income tax is to tax all income at its source. By this means

many small collections of the tax are avoided, and there is less likelihood of any person evading payment of his fair share.

As an illustration of the effect of taxing income at its source, and how matters adjust themselves so that no one need pay more than his proper share of the tax, take the case of a house proprietor, A, the owner of houses having a rental of £1380 a year. Suppose that a feu-duty of £100 a year is payable by A to B in respect of part of the property, and that there is a bond over the property in favour of C, to whom £300 a year is payable in respect of interest.

The income-tax assessors charge A on the net annual value of his property, which is reckoned at the gross rental minus one-sixth to cover the annual repairs, and also minus an allowance for owners' rates.

A therefore pays tax, say on £1380 – (£230 + £150)		£1000
He, however, deducts the tax in paying the feu-duty of	£100	
and the mortgage interest of	300	
		400
He is, therefore, really only taxed on his net income		£600
B pays tax, through the deduction being made from the feu-duty payable to him, on		100
C pays tax, through the deduction having been made from the interest payable to him, on		300
So that, in place of there being three collections, there is in this case only one collection of tax on		£1000

If the only income of B is the feu-duty of £100, he would be entitled to claim repayment of the tax from the Inland Revenue, his income being under £160. If the only income of C is the £300 of interest, he would be entitled to claim repayment of the tax upon £160.

Schedule B.

Under Schedule B is included the income from the occupation of lands. The farmer has the right to say whether he will be assessed under this Schedule or under

Schedule D. If he elects to be assessed under this Schedule his income is estimated at one-third of the rent of his farm. The farmer may, however, elect to be assessed under Schedule D upon his actual profits. If a farmer's actual income does not amount to the sum at which he is assessed, he may claim repayment of the tax over-paid. The occupiers of gardens and pleasure-grounds are assessed under this schedule.

Schedule C.

Under Schedule C is assessed all income in respect of interest and annuities payable out of any Government funds. All interests and annuities payable by local authorities and secured on rates are subject to deduction of tax at the rate ruling at the date of payment.

Schedule D.

Under Schedule D are included the profits of trades, professions, employments, or vocations carried on by persons residing in the United Kingdom, or carried on in the United Kingdom by persons resident elsewhere. Ordinary business profits are determined on the basis of the average annual profit for the three years ending on the date of the balancing of the books of the business, which is immediately previous to the 5th April commencing the year of assessment. If the business has been commenced within three years, the assessment is upon the average from the period of commencing the same. If the business has been commenced within the year of assessment, the profits have to be estimated according to the best knowledge and belief of the taxpayer.

In submitting the Profit and Loss Account of a concern to the assessors, sometimes special Profit and Loss Accounts are prepared containing only the items which should be included according to the principles laid down by the assessors. The better method is to submit copies of the Profit and Loss Accounts of the concern as they appear in the business books, and in an appended statement show any deductions or additions which require to

be made to give effect to the requirements of the assessors. There is submitted such a statement showing various deductions and additions required to adjust the profit shown in the Profit and Loss Accounts for the three years to the assessable profit under the Income Tax Acts.

Schedule E.

Schedule E is in respect of income derived from public offices and employments of profit. The deductions allowed from the gross income are the actual expenses incurred in the performance of the duties of the office.

REID & CO., ENGINEERS

Abstract of Profit and Loss Accounts

Income.

	1899.	1900.	1901.
By Contracts and sales .	£31,000 0 0	£38,000 0 0	£50,000 0 0
,, Rents received . .	200 0 0	200 0 0	200 0 0
Gross income .	£31,200 0 0	£38,200 0 0	£50,200 0 0

Expenditure.

	1899.	1900.	1901.
To Material . . .	£13,000 0 0	£18,000 0 0	£25,000 0 0
,, Wages and salaries .	12,000 0 0	13,000 0 0	17,600 0 0
,, Charges . . .	700 0 0	800 0 0	900 0 0
,, Rent, rates, taxes, etc.	600 0 0	500 0 0	500 0 0
,, Discount . . .	500 0 0	600 0 0	700 0 0
,, Depreciation . .	400 0 0	500 0 0	600 0 0
,, Interest on mortgage	300 0 0	200 0 0	100 0 0
,, Interest on capital .	500 0 0	600 0 0	700 0 0
,, Salaries to partners .	1,000 0 0	1,000 0 0	1,000 0 0
	£29,000 0 0	£35,200 0 0	£47,100 0 0
,, Profit allocated to partners . .	2,200 0 0	3,000 0 0	3,100 0 0
	£31,200 0 0	£38,200 0 0	£50,200 0 0

STATEMENT SHOWING ASSESSABLE INCOME

	1899.	1900.	1901.
Profit allocated to partners as above	£2200 0 0	£3000 0 0	£3100 0 0
Add—			
Salaries to partners	1000 0 0	1000 0 0	1000 0 0
Interest on capital	500 0 0	600 0 0	700 0 0
Interest on mortgage	300 0 0	200 0 0	100 0 0
Depreciation	400 0 0	500 0 0	600 0 0
	£4400 0 0	£5300 0 0	£5500 0 0
Deduct—			
Rents received, upon which tax already deducted	£200 0 0	£200 0 0	£200 0 0
Depreciation allowed by assessors	300 0 0	400 0 0	400 0 0
	£500 0 0	£600 0 0	£600 0 0
Assessable income	£3900 0 0	£4700 0 0	£4900 0 0

Equal to an average of £4500 per annum.

In preparing the Return the rules and regulations prescribed by Income Tax law and practice must be observed, of which the following are the most frequently met with, and which are illustrated in the foregoing example:—

1. The average is for the three years completed before the commencement of the assessment year; the foregoing statement was for the Return for 1902-3.

2. Salaries to partners and interest on capital are not proper charges against business profits; they are allocations or appropriations of profits.

3. Interest on mortgage, and also feu-duties and other annual payments from which tax is deductable at the time of payment, must be included in the Return, so that they may be assessed, and the tax thereon is recovered by deduction from the termly payments of these burdens.

4. The rates of depreciation charged against Profit and Loss Account for each year by different firms differ widely, and accordingly the surveyors require to be satisfied regarding the amounts written off from year to year. The practice is

to disallow the provisions made by the firm and to fix an amount estimated at varying rates according to the nature of the assets.

5. All bad debts actually written off and discounts actually allowed are admissible charges against Profit and Loss Account, but provisions and reserves against these items for the future are not proper deductions.

6. If property tax under Schedule A or income tax under Schedule D be included under the rent and taxes heading in the firm's books, the items must also be disallowed.

7. If the firm own their business premises they may charge their Profit and Loss Account with the gross rent as if they were tenants, in which case they must not also charge repairs and owners' taxes; or they may charge repairs and owners' taxes and also deduct the net annual value on which they are assessed under Schedule A. This last item is one which is frequently overlooked, thus resulting in the firm being twice assessed for it—under Schedule A and again Schedule D.

8. Rents of property owned by the trader, and dividends and interests from investments held by him, should be eliminated from his business Profit and Loss Account, as they are already taxed, and should not therefore be included to augment his assessable profit under Schedule D.

Items which have been charged to Profit and Loss Account, but which are not admissible as deductions, should be written back by being added to the profit brought out in the accounts, and items which are allowable as deductions, but which have not been charged in the accounts, should be deducted, as shown in the example.

Since the introduction of the relief granted to earned incomes by the Finance Act of 1907 a firm must be assessed in its corporate capacity. It must be remembered, nevertheless, that the tax is one falling upon the incomes of the individual partners, and it must accordingly be apportioned between the partners and not be charged in the firm's Profit and Loss Account. If it be so charged the effect is to allocate the burden between the partners in the proportions in which they share the net profits, notwithstanding that

there might be salaries to partners and varying interests on capital, besides other disturbing factors at work. The apportionment in each case is one for careful consideration, and the principles to be kept in view are—(1) The tax paid must be first subjected to deduction in respect of the tax recovered from other parties on payment of feu-duties, interests, etc.; (2) tax on salaries to partners and on interest on capital must also be deducted from the tax paid and debited directly to the accounts of the partners credited with such salaries and interest; (3) the balance of the tax then falls to be allocated and debited to the partners' accounts in the proportions in which they share the profit of the assessment year, especially keeping in view any general abatements and life insurance abatements to which the individual partners are entitled.

An abatement is allowed from all incomes, to an extent not exceeding one-sixth of the total income, in respect of premiums paid to British Life offices to secure an assurance or annuity on the life of the taxpayer himself or on that of his wife. This special abatement does not affect the general abatement to which the taxpayer is entitled; thus—

The total income is		£410
On which the general abatement is .	£150	
And the life insurance abatement in respect of premiums amounts to .	50	
	——	200
Net assessable income . . .		£210

The general abatement is on the *£410*, not on the £410 less the premiums of £50.

Exercise.

The net profits of a business for the past three years amounted to £1000, £1050, and £1100. For the purpose of ascertaining the amount liable to income tax, it was necessary to reconsider certain of the items which had been

charged against the profit, and the following list of items was prepared:—

	1st Year.	2nd Year.	3rd Year.
Income tax paid . . .	£24	£27	£30
Feu-duty paid, less tax . .	25	25	25
Interest on mortgage, less tax .	100	100	100
Interest on loan, less tax . .	40	60	60
Interest on capital . . .	250	280	300
Partners' salaries . . .	500	500	500
Bank interest on current account	51	48	36

Prepare statement showing the assessable profit for the year.

The Preparation of Income Tax Tables.

When the rate of income tax changes as at 5th April in any year, the tax deductable from the half-yearly payments falling due at the following Whitsunday term must be regarded as composed of the proportions of the old and new rates of tax equivalent to the periods for which these respective rates ruled within the half-year while the interest or other income was accruing. For example, the rate ruling at 5th April 1908 was 1s., and suppose that from that date it was 10d., then the rate of tax to be deducted from half-yearly payments falling due at Whitsunday 1908 would be ascertained thus: The rate would be 10d. from 5th April to 15th May = 40 days; it is a half-yearly payment which is to be charged, and is therefore in respect of $182\frac{1}{2}$ days; of this already 40 days are taken at 10d., and the balance of the period, $142\frac{1}{2}$ days, is therefore at 1s., giving—

$$\frac{(142\frac{1}{2} \times 12) + (40 \times 10)}{182\frac{1}{2}} = 11{\cdot}56164383.$$

From this fraction a table of values may be prepared to the nearest farthing, in the same way as is explained on p. 311.

RATES OF LOCAL AUTHORITIES

In connection with the levying of the rates of local authorities there are some interesting questions. A considerable amount of economy may be effected in the manner in which the various rates are calculated and collected. The tendency at the present time is to consolidate the various rates so as to have one local rate for all purposes. The economy which would thereby be effected is considerable. One of the strongest objections which can be raised against such consolidation is that it removes the spending authority farther from the ratepayers, and so may lead to the local authority spending more than they would otherwise do. The Poor and School Rates, as a rule, are collected together, and the following are given as examples of the preparation of Assessment Tables to be used in preparing the Assessment Roll:—

Edinburgh Parish Council

Preparation of Assessment Tables for Year ending 15th May 1900.

The rates as fixed by the Edinburgh Parish Council in July 1899 were as follows:—

	Owners.	Occupiers.	Total.
Poor Rate,	$3\frac{3}{16}$d. per £.	$3\frac{5}{16}$d. per £.	$6\frac{1}{2}$d. per £.
School Rate,	$4\frac{13}{20}$d. per £.	$4\frac{17}{20}$d. per £.	$9\frac{1}{2}$d. per £.

In terms of the 37th Section of the Poor Law Act, 1845, the Council, in fixing the annual value of the heritable subjects in the parish, granted in respect of expenses and repairs a deduction of 10 per cent from the rental of all lands and heritages within the parish, with the exception of water-works, tramways, and railways, in connection with which a greater deduction was allowed.

Formerly, in giving effect to this deduction of 10 per cent, the rentals as given in the Assessment Roll were reduced by 10 per cent, and thereafter the rate was calculated on the nine-tenths rental. To obviate this preliminary step it is only necessary to prepare a table in which the one-tenth has been deducted from the tax, and this is done in the following method.

I. *To prepare the Owners' Assessment Table.*

The Owners' Rates as fixed were: Poor Rate, $3\frac{3}{16}$d. per £; and School Rate, $4\frac{13}{20}$d. per £; a total rate of $7\frac{67}{80}$d., or 7·8375d., per £ on the nine-tenths, or valued rental, as it is termed. Now, as stated before, instead of deducting one-tenth from the rentals the deduction is made from the tax, which becomes 7·05375d. per £ on the gross rental.

In preparing the tables it is necessary to have every figure to the nearest halfpenny, and in order to get this ·5 of a halfpenny is added to the initial value, which makes all the other values come automatically to the nearest halfpenny. Otherwise it would be necessary to go over the whole table after it had been calculated, and treat every ·5 or greater fraction of a halfpenny as a halfpenny. 7·05375 reduced to the decimal of a halfpenny is 7 pence ·1075 halfpence. Therefore, in order to get each succeeding figure to the nearest halfpenny ·5 is added to this initial value, which becomes 7 pence ·6075 halfpence. It is now only necessary to add to this continuously 7 pence ·1075 halfpence as far as the increments of £1 in the rental are desired.

The table is calculated by increments of £1 up to the rental of £280. From £280 to £300 by increments of £5, which is got by adding on continuously 5 times 7·05375 pence, which is equal to 2s. 11d.$^{0\cdot5375\text{ (halfpence)}}$. From £300 to £1000 the table goes up by increments of £100, and from £1000 to £10,000 by increments of £1000. The working for the first ten places is as follows:—

Rental.	Tax.			
£	£	s.	d.	Half-pence.
1	0	0	7	0·6075
2	0	1	2	0·7150
3	0	1	9	0·8225
4	0	2	4	0·9300
5	0	2	11	1·0375
6	0	3	6	1·1450
7	0	4	1	1·2525
8	0	4	8	1·3600
9	0	5	3	1·4675
10	0	5	10	1·5750

From the above it will be seen that the tax has been calculated to the nearest halfpenny at once by adding on the ·5 of a halfpenny to the initial value before starting to prepare the table. After the table has been calculated it is best to have it printed from the original manuscript, in which case the printer disregards the decimal places and prints the rest as it stands, the small figure at the right of the pence representing halfpence. For example, the tax on £10 is 5s. $10\frac{1}{2}$d.

The table may be proved, when calculating, at intervals of 5 or 10. For instance, the figure which is added on continually is 7·05375 pence, and this multiplied by 10 should give the tax on £10. Now 7·05375 multiplied by 10 is 70·5375 pence, or 5s. 10d.$^{1·075\text{ halfpence.}}$ If we add on ·5, which was added to the starting figure, in order to have every value to the nearest halfpenny, we get 5s. 10d.$^{1·575\text{ halfpence,}}$ which is the figure already shown by the table. The table may thus be proved at every interval of 10 either by using the original figure, 7·05375 pence, and multiplying by the

rental, or by using intermediate figures, the accuracy of which has already been proved.

II. *To prepare the Occupiers' Assessment Table.*

The Occupiers' Rates as fixed were: Poor Rate, $3\frac{5}{16}$d. per £; and School Rate, $4\frac{17}{20}$d. per £; a total rate of $8\frac{13}{80}$d., or 8·1625d., per £. Deducting 10 per cent from 8·1625d., we obtain 7·34625d., and this figure expressed in the decimal of a halfpenny is 7 pence ·6925 halfpence. We therefore add ·5 to this, which gives $7^{1\cdot1925}$. Starting with this figure, and adding $7^{0\cdot6925}$ continually, we construct the table. The working out for the first ten places is as follows:—

Rental.	Tax.			
£	£	*s.*	*d.*	Half-pence.
				1·1925
1	0	0	7	
				1·8850
2	0	1	2	
				0·5775
3	0	1	10	
				1·2700
4	0	2	5	
				1·9625
5	0	3	0	
				0·6550
6	0	3	8	
				1·3475
7	0	4	3	
				0·0400
8	0	4	11	
				0·7325
9	0	5	6	
				1·4250
10	0	6	1	

This table should also be proved at intervals of 10 in a similar way to that of the Owners' table, which has been already explained.

LOANS REPAYABLE BY INSTALMENTS

A favourite method of repaying loans is by equal annual instalments, which include a payment of principal and the interest due on the principal outstanding. For municipal bodies who are allowed to borrow on the condition that the loan is paid off during a certain period this method is of great advantage, as otherwise the local authority would have to accumulate a sinking fund, and by setting aside and investing so much out of the rates each year have the necessary funds out of which to repay the amount borrowed. The local authority thus saves the expense of investing the sinking fund, the risk of the sinking fund investment proving bad, and the risk of the rate of interest realisable falling. In respect of these risks local authorities are usually willing to give a slightly higher rate of interest for money repayable by equal annual instalments than they would give for a permanent loan. When a loan is repayable by equal annual instalments of principal and interest it practically amounts to the corporation investing the sinking fund in the security of the loan itself. The rate now charged by the Local Government Loan Commissioners is only $3\frac{1}{4}$ per cent for loans repayable within thirty years, and these terms are as low as can be obtained anywhere. Such loans are also granted on the footing that the same instalment of principal is repaid each year. In this case the amount of interest gradually decreases as the loan is paid off. The charge for interest and repayment of capital is thus heavier during the beginning of the loan than by the method of having an equal annual instalment of principal and interest.

Loans repayable by Equal Annual Instalments, including Principal and Interest.

When the rate of interest charged by the lender and the rate of interest at which the sinking fund can be accumulated are the same, or when the sinking fund is paid to the

lender in redemption of the loan, the following is the method of arriving at the annual instalment:—

Rule.

Refer to a table showing the annuity which £1 will purchase for any number of years at the given rate of interest, and opposite the given number of years will be found the annuity bought by paying down £1. This multiplied by the amount of the loan will give the annual instalment to pay off the loan, principal and interest, in the given time.

Example.—To find the annual instalment of principal and interest to pay off a loan of £1000 in five years at 3 per cent.

Referring to a table showing the annuity which £1 will purchase, and opposite five years and under 3 per cent we find ·218355. This multiplied by 1000 gives 218·355, which is the annual instalment to pay off the loan, with interest. The annual instalment is £218 : 7s. 1d., and of this sum there is given to the lender for interest each year the sum of £30, and the balance of £188 : 7s. 1d. is the instalment of principal to be accumulated at 3 per cent or paid to the lender. This balance of £188 : 7s. 1d. invested each year at 3 per cent amounts at the end of five years to the £1000.

Schedule of Repayment.

When the loan is made repayable by annual instalments, including principal and interest, it is usual to have a schedule showing the interest and capital in each instalment annexed to the bond. The receipts for the payments of the instalments should also separate the interest and capital, because income tax should be deducted from the interest and not from the whole instalment. The method of preparing these schedules will be seen from the following examples.

Suppose a borrower obtains a loan of £1000 from an investment company at 5 per cent interest, repayable in six years by equal annual instalments. To find the instalment

we refer to a table, and find that the instalment to repay a loan of £1 under the given conditions is ·19701747. Multiplying by 1000 we get as the instalment £197·01747, or £197 : 0s. 4d. It is evident that for the first year the interest is £50; hence the first instalment of capital is £147 : 0s. 4d. For the next year the instalment of capital will be this sum, together with 5 per cent upon it, as interest will no longer be chargeable upon the capital repaid, but the amount of such interest will go to liquidate the debt. Hence the capital repaid each year is got by adding interest at 5 per cent to the capital repaid in the previous year. The schedule when completed is as follows :—

SCHEDULE No. I.

SHOWING THE INTEREST AND CAPITAL CONTAINED IN EACH INSTALMENT OF A LOAN OF £1000, REPAYABLE IN SIX YEARS BY EQUAL ANNUAL INSTALMENTS OF £197 : 0s. 4d.

Interest, 5 per cent.

Number of Instalment.	Date when due.	Interest in Instalment.			Capital in Instalment.			Capital outstanding after Instalment paid.		
		£	s.	d.	£	s.	d.	£	s.	d.
1	15th May 1899	50	0	0	147	0	4	852	19	8
2	Do. 1900	42	13	0	154	7	4	698	12	4
3	Do. 1901	34	18	7	162	1	9	536	10	7
4	Do. 1902	26	16	6	170	3	10	366	6	9
5	Do. 1903	18	6	4	178	14	0	187	12	9
6	Do. 1904	9	7	7	187	12	9	0	0	0
					1000	0	0			

As another example, suppose a borrower obtains a loan of £1000 at 5 per cent, repayable in three years by equal annual instalments of £367 : 4s. 2d. The schedule of repayments would be as follows :—

SCHEDULE No. II.

SHOWING THE INTEREST AND CAPITAL CONTAINED IN EACH INSTALMENT OF A LOAN OF £1000, REPAYABLE IN THREE YEARS BY EQUAL ANNUAL INSTALMENTS OF £367 : 4s. 2d.

Interest, 5 per cent.

Number of Instalment.	Date when due.	Interest in Instalment.			Capital in Instalment.			Capital outstanding after Instalment paid.		
		£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
1	15th May 1899	50	0	0	317	4	2	682	15	10
2	Do. 1900	34	2	10	333	1	4	349	14	6
3	Do. 1901	17	9	8	349	14	6	0	0	0
					1000	0	0			

Taking the loan given in Schedule No. II. as an illustration, the transactions in the borrower's ledgers would appear as follows :—

Investment Company.

1899.					1898.				
May 15.	To Cash	£367	4	2	May 15.	By Cash	£1000	0	0
1900.					1899.				
May 15.	,, do.	367	4	2	May 15.	,, Interest	50	0	0
1901.					1900.				
May 15.	,, do.	367	4	2	May 15.	,, do.	34	2	10
					1901.				
					May 15.	,, do.	17	9	8
		£1101	12	6			£1101	12	6

The Ledger Account of the lender as given above would at the end of the three years be square, as the loan would be paid off.

If the borrower balanced his books on the 15th May in each year after the transactions of the day were over, the Ledger Account at that date annually would show the balance of capital due to the investment company as given in the schedule, as follows :—

Investment Company.

1899.				1898.			
May 15.	To Cash	£367	4 2	May 15.	By Cash	£1000	0 0
,,	Balance	682	15 10	1899.			
				May 15.	,, Interest	50	0 0
		£1050	0 0			£1050	0 0
1900.				1899.			
May 15.	To Cash	£367	4 2	May 16.	By Balance	£682	15 10
,,	Balance	349	14 6	1900.			
				May 15.	,, Interest	34	2 10
		£716	18 8			£716	18 8
1901.				1900.			
May 15.	To Cash	£367	4 2	May 16.	By Balance	£349	14 6
				1901.			
				May 15.	,, Interest	17	9 8
		£367	4 2			£367	4 2

If the borrower closed his books as at 31st December in each year the proportion of interest due to that date would require to be calculated, and the Ledger Account would be as follows. It will be observed that the interest is credited also at 15th May, because it is compounded at that date.

Investment Company.

1898.				1898.			
Dec. 31.	To Balance	£1031	10 2	May 15.	By Cash	£1000	0 0
				Dec. 31.	,, Interest	31	10 2
		£1031	10 2			£1031	10 2
1899.				1899.			
May 15.	To Cash	£367	4 2	Jan. 1.	By Balance	£1031	10 2
Dec. 31.	,, Balance	704	6 0	May 15.	,, Interest	18	9 10
				Dec. 31.	,, do.	21	10 2
		£1071	10 2			£1071	10 2
1900.				1900.			
May 15.	To Cash	£367	4 2	Jan. 1.	By Balance	£704	6 0
Dec. 31.	,, Balance	360	14 10	May 15.	,, Interest	12	12 8
				Dec. 31.	,, do.	11	0 4
		£727	19 0			£727	19 0
1901.				1901.			
May 15.	To Cash	£367	4 2	Jan. 1.	By Balance	£360	14 10
				May 15.	,, Interest	6	9 4
		£367	4 2			£367	4 2

When the rate of interest charged by the lender and the rate of interest that can be obtained on the investment of the annual instalment of principal are not the same, the following is the method of arriving at the annual instalment :—

Rule.

Refer to a table showing the amount of £1 per annum in any number of years, and opposite the term of years of the loan under the rate per cent at which the sinking fund can be invested will be found the amount produced by setting aside £1 yearly. The amount of the loan divided by this sum will give the annual instalment of sinking fund required to pay off the loan so far as the principal is concerned. Add to this a year's interest on the loan at the rate agreed on, and the total will be the total annual charge.

Example.—The sum of £10,000 is borrowed at $3\frac{1}{2}$ per cent per annum, and the principal is payable at the end of thirty years. The instalment of principal can only be invested at 3 per cent. Find what annual sum must be set aside.

The sum of £1 per annum accumulated at 3 per cent per annum will amount to £47·57542 in thirty years. £10,000 divided by 47·57542 gives £210 : 3s. 10d., which is the sum which must be set aside each year and invested at 3 per cent to amount to £10,000 in thirty years.

The total annual charge is therefore :—

Interest on loan of £10,000 at $3\frac{1}{2}$ per cent	£350	0	0
Annual sum to be put to the sinking fund, and invested at 3 per cent .	210	3	10
	£560	3	10

Loans repayable by Equal Annual Instalments of Principal.

When a loan is repayable by equal annual instalments of principal, to find the principal sum payable each year we

have merely to divide the total loan by the number of years. The interest each year is merely the interest on the capital outstanding at the beginning of the year. For the sake of comparison with the figures already given, the following schedules are shown, together with specimen Ledger entries in the books of the borrower.

SCHEDULE No. III.

SHOWING THE PAYMENT OF INTEREST AND CAPITAL OF A LOAN OF £1000, REPAYABLE IN SIX YEARS BY EQUAL ANNUAL INSTALMENTS OF PRINCIPAL OF £166 : 13s. 4d.

Interest, 5 per cent.

Number of Instalment.	Date when due.	Sum payable each year.			Interest payable.			Capital payable.			Capital outstanding after Instalment paid.		
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1	15th May 1899	216	13	4	50	0	0	166	13	4	833	6	8
2	Do. 1900	208	6	8	41	13	4	166	13	4	666	13	4
3	Do. 1901	200	0	0	33	6	8	166	13	4	500	0	0
4	Do. 1902	191	13	4	25	0	0	166	13	4	333	6	8
5	Do. 1903	183	6	8	16	13	4	166	13	4	166	13	4
6	Do. 1904	175	0	0	8	6	8	166	13	4	0	0	0
					175	0	0	1000	0	0			

SCHEDULE No. IV.

SHOWING THE PAYMENT OF INTEREST AND CAPITAL OF A LOAN OF £1000, REPAYABLE IN THREE YEARS BY EQUAL ANNUAL INSTALMENTS OF PRINCIPAL OF £333 : 6s. 8d.

Interest, 5 per cent.

Number of Instalment.	Date when due.	Sum payable each year.			Interest payable.			Capital payable.			Capital outstanding after Instalment paid.		
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1	15th May 1899	383	6	8	50	0	0	333	6	8	666	13	4
2	Do. 1900	366	13	4	33	6	8	333	6	8	333	6	8
3	Do. 1901	350	0	0	16	13	4	333	6	8	0	0	0
					100	0	0	1000	0	0			

Borrower's Ledger

Investment Company.

899.					1898.			
May 15.	To Cash (capital)'	£333	6	8	May 15. By Cash .	£1000	0	0
	,, do. (interest)	50	0	0	1899.			
1900.					May 15. ,, Interest .	50	0	0
May 15.	,, do. (capital)	333	6	8	1900.			
	,, do. (interest)	33	6	8	May 15. ,, do. .	33	6	8
1901.					1901.			
May 15.	,, do. (capital)	333	6	8	May 15. ,, do. .	16	13	4
	,, do. (interest)	16	13	4				
		£1100	0	0		£1100	0	0

Squaring off the books at 15th May in each year, the above Ledger Account would show the amount of principal due at that date annually, as follows :—

Investment Company.

1899.					1898.			
May 15.	To Cash (capital)	£333	6	8	May 15. By Cash .	£1000	0	0
	,, do. (interest)	50	0	0	1899.			
	,, Balance . .	666	13	4	May 15. ,, Interest .	50	0	0
		£1050	0	0		£1050	0	0
1900.					1899.			
May 15.	To Cash (capital)	£333	6	8	May 16. By Balance .	£666	13	4
	,, do. (interest)	33	6	8	1900.			
	,, Balance . .	333	6	8	May 15. ,, Interest .	33	6	8
		£700	0	0		£700	0	0
1901.					1900.			
May 15.	To Cash (capital)	£333	6	8	May 16. By Balance .	£333	6	8
	,, do. (interest)	16	13	4	1901.			
					May 15. ,, Interest .	16	13	4
		£350	0	0		£350	0	0

If the borrower closes his books on the 31st December in each year, the following would be the Ledger Account :—

Investment Company.

1898.					1898.				
Dec. 31.	To Balance		£1031	10 2	May 15.	By Cash		£1000	0 0
					Dec. 31.	,, Interest		31	10 2
			£1031	10 2				£1031	10 2
1899.					1899.				
May 15.	To Cash (capital)	£333	6	8	Jan. 1.	By Balance		£1031	10 2
	,, do. (interest)	50	0	0	May 15.	,, Interest		18	9 10
Dec. 31.	,, Balance	687	13	5	Dec. 31.	,, do.		21	0 1
		£1071	0	1				£1071	0 1
1900.					1900.				
May 15.	To Cash (capital)	£333	6	8	Jan. 1.	By Balance		£687	13 5
	,, do. (interest)	33	6	8	May 15.	,, Interest		12	6 7
Dec. 31.	,, Balance	343	16	9	Dec. 31.	,, do.		10	10 1
		£710	10	1				£710	10 1
1901.					1901.				
May 15.	To Cash (capital)	£333	6	8	Jan. 1.	By Balance		£343	16 9
	,, do. (interest)	16	13	4	May 15.	,, Interest		6	3 3
		£350	0	0				£350	0 0

REDEMPTION OF LEASES

There are three methods used for the purpose of making provision for those cases in which a slump sum has been paid down in respect of property held on leasehold, which will have to be abandoned at the end of the lease. The slump sum is paid in respect of the right to the use of an asset for a limited period. It is evident that the sum so paid must be written off during the period so that at the close no asset may appear in the books of the concern.

The three methods are:—

1. To write off each year an equal proportion of the cost.
2. To set aside each year such a sum as accumulated at compound interest at a certain rate will amount at the end of the lease to the cost.
3. To consider the cost of the lease as the purchase price of an annuity-certain for the term of the duration of the lease.

The first method has the advantage of simplicity, and is the same each year, but no account is taken of the fact that the money has been paid down, and that interest could have been earned upon it.

The second method is the Sinking Fund method, and the third method the Annuity Fund method. In actuarial symbols these methods are represented as follows:—

$$\text{First method} = \frac{1}{n};$$

$$\text{Second method} = \frac{1}{s_n}$$

$$\text{Third method} = \frac{1}{a_n} \text{ or } \frac{1}{s_n} + i.$$

The last method is the most scientific, and is theoretically the most correct.

To illustrate the three methods, take the case of £1000 paid down for a lease which has three years to run. By the first method £1000 divided by 3, which is £333 : 6s. 8d., is set aside each year; by the second method, on the assumption of 5 per cent., during the first year £317 : 4s. 2d. is set aside. In the second year this sum, together with interest upon it at 5 per cent, will be set aside, and during the third year interest will again be added. By the third method £367 : 4s. 2d. is set aside each year.

The amount written off by the three methods each year is accordingly as follows:—

	First Method.	Second Method.	Third Method.
First year	£333 6 8	£317 4 2	£367 4 2
Second year	333 6 8	333 1 4	367 4 2
Third year	333 6 8	349 14 6	367 4 2
	£1000 0 0	£1000 0 0	£1101 12 6

The Ledger Account of the lease under the third method would be as follows:—

Lease Account.

1900.					1900.			
Jan. 1.	To Cash		£1000	0 0	Dec. 31.	By Profit and Loss	£367	4 2
Dec. 31.	,, Interest		50	0 0	1901.			
1901.					Dec. 31.	,, do.	367	4 2
Dec. 31.	,, do.		34	2 10	1902.			
1902.					Dec. 31.	,, do.	367	4 2
Dec. 31.	,, do.		17	9 8				
			£1101	12 6			£1101	12 6

By the second and third methods the net profit is the same. Under the third method the amount debited to the Profit and Loss Account in respect of the lease is greater than by the second method, but a sum is taken credit for in respect of interest on the outlay in connection with the lease.

HIRE-PURCHASE SYSTEM OF ACQUIRING RAILWAY WAGGONS

Colliery companies, as a rule, purchase railway waggons under a hire and purchase agreement by which the price of the waggons is paid by yearly instalments spread over from three to seven years, and the waggons only actually become the property of the colliery company on the payment of the last instalment. There are two methods of treating such a transaction in the books of a colliery company. The transaction may be looked upon really as a purchase, but subject to the payment of the instalments as they fall due, or the exact letter of the contract may be given effect to in the books of the colliery company.

Suppose that on the 1st January sixty waggons are purchased from the North British Waggon Co., Ltd., on the footing that they are to be paid for by five annual instalments of £600, being a total payment of £3000. It is quite evident that these instalments as they fall due and are paid by the colliery company cannot be charged altogether against Revenue or altogether to Capital. It is evident that each instalment consists of interest on the amount of the purchase price of the waggons outstand-

ing from time to time, together with a payment of capital to extinguish the purchase price.

To find out what rate of interest should be taken as the basis of calculation it is necessary to ascertain as exactly as possible the price of the waggons on the assumption that cash was paid for them. If it is assumed that this cash price is £2597 : 13s. 9d., from a table of annuities it is found that the rate of interest involved is 5 per cent, and the following schedule can then be prepared :—

SCHEDULE SHOWING THE DIVISION OF INSTALMENTS FOR THE PURCHASE OF WAGGONS INTO PRINCIPAL AND INTEREST, THE ANNUAL INSTALMENT FOR FIVE YEARS BEING £600, PAYABLE ON 31ST DECEMBER, AND THE CASH VALUE OF THE WAGGONS AT DATE OF AGREEMENT £2597 : 13s. 9d.

Interest, 5 per cent.

Date when Instalment due.	Interest.			Principal.			Principal outstanding after Instalment paid.		
	£	s.	d.	£	s.	d.	£	s.	d.
31st December 1900	129	18	0	470	2	0	2127	11	9
Do. 1901	106	8	0	493	12	0	1633	19	9
Do. 1902	81	14	0	518	6	0	1115	13	9
Do. 1903	55	15	9	544	4	3	571	9	6
Do. 1904	28	10	6	571	9	6	0	0	0
				2597	13	9			

If the colliery company assume that the waggons are purchased outright, then immediately the agreement is signed and the waggons delivered the colliery company would credit the North British Waggon Co., Ltd., and debit the Railway Waggon Account, with £2597 : 13s. 9d. When the first instalment of £600 fell due the total amount would be posted from the Cash Book to the debit of the North British Waggon Co., Ltd., but at the same time a Journal entry would be made crediting the North British Waggon Co., Ltd., with £129 : 18s., the interest on the first instalment, and the Interest Account would be debited with this amount. The working of these two

accounts for the five years is shown in the following example, and it is further assumed that from the Waggon Account 6 per cent is written off each year for depreciation.

North British Waggon Co., Ltd.

1900.				1900.			
Dec. 31.	To Cash, first instalment	£600	0 0	Jan. 1.	By Railway Waggon Account, for sixty waggons purchased per agreement	£2597	13
	,, Balance	2127	11 9	Dec. 31.	,, Interest	129	18
		£2727	11 9			£2727	11
1901.				1901.			
Dec. 31.	To Cash, second instalment	£600	0 0	Jan. 1.	By Balance	£2127	11
	,, Balance	1633	19 9	Dec. 31.	,, Interest	106	8
		£2233	19 9			£2233	19
1902.				1902.			
Dec. 31.	To Cash, third instalment	£600	0 0	Jan. 1.	By Balance	£1633	19
	,, Balance	1115	13 9	Dec. 31.	,, Interest	81	14
		£1715	13 9			£1715	13
1903.				1903.			
Dec. 31.	To Cash, fourth instalment	£600	0 0	Jan. 1.	By Balance	£1115	13
	,, Balance	571	9 6	Dec. 31.	,, Interest	55	15
		£1171	9 6			£1171	9
1904.				1904.			
Dec. 31.	To Cash, fifth instalment	£600	0 0	Jan. 1.	By Balance	£571	9
				Dec. 31.	,, Interest	28	10
		£600	0 0			£600	0

Railway Waggon Account.

1900.				1900.			
Jan. 1.	To North British Waggon Co., Ltd., for sixty waggons purchased per agreement	£2597	13 9	Dec. 31.	By Depreciation Account	£155	17
					,, Balance	2441	16
		£2597	13 9			£2597	13
1901.				1901.			
Jan. 1	To Balance	£2441	16 2	Dec. 31.	By Depreciation Account	£146	10
					,, Balance	2295	5
		£2441	16 2			£2441	16

Railway Waggon Account—Continued.

1902.				1902.				
Jan. 1.	To Balance	. .	£2295 5 9	Dec. 31.	By Depreciation Account		£137 14 0	
					,, Balance	. . .	2157 11 9	
			£2295 5 9				£2295 5 9	
1903.				1903.				
Jan. 1.	To Balance	. .	£2157 11 9	Dec. 31.	By Depreciation Account		£129 9 0	
					,, Balance	. . .	2028 2 9	
			£2157 11 9				£2157 11 9	
1904.				1904.				
Jan. 1.	To Balance	. .	£2028 2 9	Dec. 31.	By Depreciation Account		£121 13 7	
					,, Balance	. . .	1906 9 2	
			£2028 2 9				£2028 2 9	
1905.								
Jan. 1.	To Balance	. .	£1906 9 2					

Suppose now that the transaction is looked upon by the colliery company more as a hire than a purchase, then the colliery company must still give effect to the fact that part of the price is in payment of the waggons, and that when the full price is paid the waggons will have depreciated to the same extent as under the first method. The colliery company would have to treat part of the price as hire and part as payment of the waggons, and as the waggons would depreciate to the same amount as formerly, depreciation would require to be written off each year of the same amount as by the first method, so that at the end of the five years the Railway Waggon Account would have the same amount at its debit as by the first method. The portions of the instalments which by the first method were treated as interest are by the second treated as hire, and would be posted from the Cash Book to a Hire Account.

The first method is undoubtedly preferable to the second, as it shows more clearly what is the practical effect of the agreement, although it may not so exactly follow out the letter of the contract.

Under the second method the Railway Waggon Account would appear as under.

Railway Waggon Account.

1900.					1900.			
Dec. 31.	To Cash, capital in first instalment paid to the North British Waggon Co., Ltd. .	£470	2	0	Dec. 31.	By Depreciation Account	£155	17
						,, Balance . . .	314	4
		£470	2	0			£470	2
1901.					1901.			
Jan. 1.	To Balance . . .	£314	4	5	Dec. 31.	By Depreciation Account	£146	10
Dec. 31.	,, Cash, capital in second instalment paid to the North British Waggon Co., Ltd. .	493	12	0		,, Balance . . .	661	6
		£807	16	5			£807	16
1902.					1902.			
Jan. 1.	To Balance . . .	£661	6	0	Dec. 31.	By Depreciation Account	£137	14
Dec. 31.	,, Cash, capital in third instalment paid to the North British Waggon Co., Ltd. .	518	6	0		,, Balance . . .	1041	18
		£1179	12	0			£1179	12
1903.					1903.			
Jan. 1.	To Balance . . .	£1041	18	0	Dec. 31.	By Depreciation Account	£129	9
Dec. 31.	,, Cash, capital in fourth instalment paid to the North British Waggon Co., Ltd. .	544	4	3		,, Balance . . .	1456	13
		£1586	2	3			£1586	2
1904.					1904.			
Jan. 1.	To Balance . . .	£1456	13	3	Dec. 31.	By Depreciation Account	£121	13
Dec. 31.	,, Cash, capital in fifth instalment paid to the North British Waggon Co., Ltd. .	571	9	6		,, Balance . . .	1906	9
		£2028	2	9			£2028	2
1905.								
Jan. 1.	To Balance . . .	£1906	9	2				

A simpler method than that given above is as follows. Suppose that a colliery company has a lease of ten waggons for twenty years at an annual charge of £30. If the present worth of the waggons is £60 each, or £600 in all, and it is considered that at the end of twenty years, when the waggons will become the property of the colliery company, they will be worth £20 each, or £200 in all, and

considering that during these twenty years there will be paid to the waggon company £600 in all, and that the value of the waggons at the end of twenty years will only be £200, it is evident that £400 must be charged to the Profit and Loss Account, or £20 per annum. The balance of the annual payment, namely, £10, goes to the Waggon Purchase Account, and at the end of the twenty years there will be £200 at the debit of this account, which will represent the value of the waggons.

INVESTIGATIONS

There is no branch of accounting in which the ability of an accountant to grasp business details, and also to appreciate the total effect of these details, has better play than in making investigations into business concerns, and in no branch of the profession is there wider scope for the exercise of special ability or genius as an accountant. For such work it is absolutely essential that the accountant should not only have received a good general education, but that he should have specially studied the subjects of mathematics and economics. In fact, if the accountant has made a special study of the higher mathematics, and has gone deeply into the problems of economics, he will find his work as an investigator all the easier, and the results at which he will arrive, and the advice he will be able to give, will be all the more exact and valuable.

The purposes in connection with which an accountant may be called upon to make an investigation into the accounts of a concern are various, but may be shortly grouped under the following heads:—

1. Where a client is considering the advisability of purchasing or becoming a partner in a business.
2. Where it is proposed to convert a business into a limited liability company.
3. Where the bankers, creditors, or shareholders of a business concern wish to have an independent investigation into the business.

4. On the death or retirement of a partner.
5. Where fraud is suspected.
6. Where it is necessary to ascertain the compensation to be awarded in respect of the compulsory acquisition by a corporation of business premises.
7. Where accounts have become confused from any cause.

Investigations have frequently to be undertaken on behalf of a client who is considering the advisability of becoming a partner in a business concern. Without such an investigation the client might find, after he had become a partner, and when it was too late to retrieve his position, that the business he had joined on the faith of those personally interested was hopelessly bad. The accountant steps in as an independent party, and after careful investigation is enabled to advise his client either to join the business on the terms proposed, to have these terms altered, or to have nothing whatever to do with the concern. In such investigations it is the duty of the accountant not only to ascertain the solvency of the business, but its capabilities as a profit-earning concern, and one likely to meet the expectations of his client.

Investigations have also to be made into businesses which it is proposed to convert into limited liability companies, and perhaps the work involved in no other branch of accounting has increased so rapidly within recent years as the work in connection with such investigations. The object of the investigation is to determine the profits earned for a period of years, and the accountant may also be asked to advise as to the capital which should be invested in the business, and upon other matters which enable the price to be given for the business to be fixed. The accountant sometimes is simply employed to give a certificate of the profits for a period of years, but if this certificate is required for the purpose of floating the business as a company he should be careful not to grant a certificate of the average annual profits merely, if he finds that these profits have been steadily decreasing. In such a case he should reveal the true state of matters to his employers and to the public. In fact, all such certificates should state the profits earned

during *each* year covered by the period of investigation. The accountant should be careful not to indulge in prophetic speculations as to the profit to be earned in the future, but should merely state the facts which he has ascertained as having prevailed in the past. In beginning such an investigation the accountant should carefully compare the revenue accounts for the years available, with the view of seeing if the turnover and expenditure are constant each year, and where they are not he should ascertain the extent and cause of their varying. He should see how the ratio of the gross profit and net profit to turnover varies, and should be specially suspicious of any large increase in the ratio of net profit in the last year embraced by his investigation.

Investigations have also to be made on behalf of creditors and shareholders of concerns which have not been successful, and it is then the duty of an accountant to ascertain the reasons of the want of success. In such investigations the accountant may have the disagreeable duty to perform of reporting upon the inefficiency or misconduct of some of the officials of the concern. Sometimes it is found that the directors are personally liable—as, for example, if they have paid dividends out of capital, have issued false Balance Sheets, or made representations to creditors knowing them to be false. Investigations have to be made into the estates of insolvent debtors, not only for the purpose of ascertaining how the business has become insolvent, but also very often for the purpose of finding out and recovering any assets which may have been parted with by the debtor to the detriment of the general body of the creditors. A debtor, for example, sometimes gives a preference to certain of his creditors, such as relations, and thereby defrauds his other creditors. There have been also many cases of insolvent debtors concealing their assets. Sometimes also it is found that fictitious liabilities are alleged by insolvent debtors, with the view of getting a lower rate of composition accepted.

On the death or retirement of a partner it is usually advisable to have the books of the concern gone over by an accountant, in order that the representatives of the deceased

partner or the retiring partner may be satisfied that the firm's affairs are being settled impartially, and in terms of the deed of co-partnery.

When business premises are acquired by a corporation under the powers of an Act of Parliament, the amount of compensation to be paid to the owner of the business depends to a large extent upon the profit he has been earning, as it is this profit which has become endangered by the compulsory removal, and it is usually upon so many years' purchase of the average profit that the amount of compensation is based.

Investigations also require to be made when accounts become confused either through incompetency, fraud, or, it may be, the death of those in charge of executries and trusts.

Accounts which require to be investigated are, as a rule, in all states of incompleteness, and it is the duty of the accountant to place them upon a proper footing, so far as the particulars available will allow. Thus the books submitted to an accountant may be kept by "single entry," as it is called, and the accountant will have to prepare such accounts as will enable him to frame a true Profit and Loss Account. Sometimes in trusts and executries the only information available is of the most meagre description, and recourse has to be had to banks and others for statements of their accounts, and the Trust or Executry Accounts have to be framed from such material as can be thus obtained. Such matters involve much labour, and the resulting states are, of course, never so satisfactory and reliable as properly framed accounts.

Liabilities.

The accountant should satisfy himself that all the liabilities appear in the books. The Order Books, Invoices, and Purchases Day Book should certainly be examined for the last month or two, if it is impossible to examine them thoroughly. It should be seen that rents, rates, taxes, light, water, interests, and other fixed or periodical payments are fully charged up to date. In bankruptcy investigations the

accountant should get, if at all possible, statements of their accounts direct from the creditors, together with particulars of any securities they may hold. It is usual to put a request for this in the notice calling the meeting of creditors at which the state of affairs is to be submitted.

Assets.

The accountant should be careful that the book debts in the Balance Sheet are correct in amount, and that all trade discounts are provided for. Sometimes the cash discounts are also provided for. The accounts due by customers should be divided into good, doubtful, and bad. The length of time a debt has been standing often indicates in which category it should be entered. A certain percentage may be written off for debts which may prove bad, but which are not definitely known to be either bad or doubtful. The past experience of the business in this respect will be the best guide.

The stock sheets should be carefully checked, and if at all possible it is advisable to have independent valuations by outsiders. The arithmetical accuracy of all extensions and additions of the stock sheets should be carefully checked.

The value of the plant and machinery should be certified by valuations made for the special purpose of the investigation, unless there are valuations of recent date in existence which are of sufficient weight to be accepted.

Profit and Loss Account.

The item of net profit is not by any means the most important item in a Profit and Loss Account. Accountants are often required to investigate the books and accounts of a concern with the view of ascertaining not only what the profit has been, but mainly with the view of advising how the profit may be increased in future. To facilitate such investigations the Profit and Loss Account must be modified from our usual notions of how it should be formed, and for

each different business the most suitable form must be adopted. The margin of profit is now so very small, and competition in every branch of trade necessitates prices being cut so fine, that a merchant or manufacturer requires to know with exactness the cost of production and the expenses of managing his business, so that he may always be sure of earning a fair profit. The Profit and Loss Account of a business, properly arranged and classified, for a series of years enables any one comparing one year with another to ascertain the cause of any variation in the profits.

The figures of a Profit and Loss Account standing alone are not easily grasped; and as in an investigation it is absolutely essential that the full significance of the figures of the revenue accounts should be appreciated, it is necessary to take advantage of every means by which these figures may be more easily comprehended. More especially is this the case with Profit and Loss Accounts for a series of years where the gross profit, charges, and net profit seem to go up and down without any apparent law, and it is only when the figures are reduced to some common ratio that the extent of such fluctuations can be ascertained, and the reason of such changes found out. The common ratio to which all the entries in a Profit and Loss Account are usually reduced is the percentage of the various items to either the sales or the cost of the goods used. It is a convenient method to show the percentage which each item in a Profit and Loss Account bears to the total sales or turnover in a column adjoining the items of income and expenditure. It is then possible to grasp the full significance of the figures and their relation to one another. One year's trading may be compared with that of another year or of several years, and any fluctuation becomes at once apparent, and its cause may be investigated. Sometimes it is desirable to show the percentages in a separate statement, more especially if two or more Profit and Loss Accounts are to be compared.

PERCENTAGE STATEMENTS

PREPARED FROM PROFIT AND LOSS ACCOUNTS

It is not sufficient for a merchant or manufacturer to know merely the amount of the profit he has made during any period. He must know exactly how it has arisen, and he ascertains this from the Profit and Loss Account and its various branches. In any business, when a series of such accounts for a number of years have been regularly prepared on the same basis, the reason of any variation in the profit can by comparison be ascertained, and any deficiency or weakness in the business located, and steps can then be taken to prevent further leakage. A merchant is thus enabled to lay his finger on the weak point in his business, and by taking action at once may avert ruin and disaster. A fall in net profit may be due (1) to a decrease in the turnover, (2) to a fall in the prices realised, or (3) to an increase in the cost, (4) a rise in the expenses of management, or (5) to a combination of these causes. To compare Profit and Loss Accounts for a series of years it is necessary to reduce the items of which they are made up to a common denominator, and this is accomplished by finding the ratio which each item in the series bears either to the sales or to the cost of the goods. A convenient way to do this is to calculate the percentage of sales or cost of goods which is gross profit, expenses, and net profit. In most businesses it is better to take the sales or the turnover as the standard of comparison, while in others it is preferable to take the cost of goods. Sometimes the basis of comparison is the cost of each article produced. In the case of colliery companies the basis is usually the cost per ton of coal sold.

When the percentages which the expenses, the gross profit, and the net profit of a business amount to are considered, it is usually with reference to the selling price of the goods. Percentage statements are frequently also drawn up in relation to the cost price. Thus, suppose that the expenses of a business amount to 30 per cent of the

turnover, and a net profit is desired at the rate of 10 per cent of the turnover. These percentages together make 40 per cent, but it would not do to add 40 per cent to the first cost of an article in order to arrive at the price. If the selling price of the article be taken as £100, then the cost of the article is evidently £60, and the amount reserved for profit and expenses being £40, it is evident that the expenses and profit borne by each £1 of original cost is $\frac{40}{60}$. £100 of cost must therefore bear $\frac{40}{60} \times 100$, $= 66\frac{2}{3}$, so that, if a merchant wishes to make a net profit of 10 per cent on the selling price of an article, of which the original cost is 60 per cent and the expenses 30 per cent, he must add to the cost price $66\frac{2}{3}$ to arrive at the selling price. Thus if the cost of an article is 5s., if we add 40 per cent to this sum we have 7s., but as of this selling price of 7s. 30 per cent, or 2s. 1d., is required for incidental expenses, we would really be selling the article at a loss of 1d., or more exactly, $1\frac{1}{5}$d., and the more articles we sold the more we would lose. The proper selling price of the article is 8s. 4d., and of this 5s. is the original cost, 2s. 6d., or 30 per cent, is the amount required for incidental expenses, and 10d. is the amount of net profit.

The treatment of such Items as Repairs in preparing Percentage Statements.

In adjusting Profit and Loss Accounts with the view of calculating percentages, such items as repairs, which fluctuate very much from year to year, should be averaged, and the same amount charged against profit each year. As the repairs actually incurred vary from year to year, if the same amount is debited each year to the Profit and Loss Account a balance will require to be carried forward in the Repairs Account each year, which may either be on the debit or credit side. This balance, if a debit one, will appear in the Balance Sheet as an asset under the head of "Repairs paid in advance," or "Repairs taken as an asset," and if a credit balance, among the liabilities under the heading of "Reserve for Repairs."

To calculate a Series of Percentages.

When it is required to find the percentages which a number of figures, such as the expenditure items in a Profit and Loss Account, bear to one figure, such as the turnover, there are various ways in which a considerable amount of the labour involved may be saved. The resulting percentages are not, as a rule, required to extend beyond two places of decimals, and the method of using four-place logarithms works out very satisfactorily. A very accurate method, and one involving little labour, is to prepare a table of the products of the divisor. Another method is to reduce the divisor to a decimal and multiply the different items by this figure, thus substituting one division and several multiplications for several divisions, division being a much more tedious operation than multiplication.

The working of the three different methods is shown in the following example :—

It is required to find the percentages which the different items on the expenditure side of the following Profit and Loss Account bear to the sales :—

PROFIT AND LOSS ACCOUNT OF A MILITARY TAILOR AND CLOTHIER'S BUSINESS FOR ONE YEAR.

Expenditure.				*Income.*			
To Cost of goods :—				By Sales . . .	£9199	0	0
Stock at beginning of year . . .	£3165	0	0				
Purchases during year	3073	0	0				
	£6238	0	0				
Deduct—							
Stock at end of year .	3179	0	0				
	£3059	0	0				
,, Wages	2053	0	0				
	£5112	0	0				
,, Gross profit carried down . . .	4087	0	0				
	£9199	0	0		£9199	0	0

PROFIT AND LOSS ACCOUNT—*Continued.*

Expenditure.				*Income.*			
To Rent and taxes	£633	0	0	By Gross profit brought down	£4087	0	0
,, Trade charges	340	0	0				
,, Salaries	263	0	0				
,, Bad debts	120	0	0				
	£1356	0	0				
,, Net profit	2731	0	0				
	£4087	0	0		£4087	0	0

The items on the expenditure side of the above Profit and Loss Account are as follows:—

Cost of goods	£3059	0	0
Wages	2053	0	0
Gross profit	4087	0	0
Rent and taxes	633	0	0
Trade charges	340	0	0
Salaries	263	0	0
Bad debts	120	0	0
Net profit	2731	0	0

It is required to find the percentages which the above figures bear to the item of Sales, £9199.

FIRST METHOD.—*Using four-place Logarithms.*

The working-out of the percentages of the different items, using four-place logarithms, will be seen from the following statement:—

Name of Item	Amount	Logarithm of Amount.	Adding $\bar{2}$·0363 to each figure in the previous column.	Percentages to Sales.
Cost of goods	£3059	3·4856	1·5219	33·26
Wages	2053	3·3124	1·3487	22·32
Gross profit	4087	3·6115	1·6478	44·44
Rent and taxes	633	2·8014	·8377	6·88
Trade charges	340	2·5315	·5678	3·70
Salaries	263	2·4200	·4563	2·86
Bad debts	120	2·0792	·1155	1·31
Net profit	2731	3·4364	1·4727	29·70

The first and second columns give the description of the item and the amount. The third column gives the logarithm of each amount. The fourth column is arrived at by adding $\bar{2}\cdot0363$ to the figures in the third column. In order to find the percentage of any one of the items to Sales, we must multiply that item by $\frac{100}{9199}$, the 9199 being the amount of the sales, and the logarithm of $\frac{100}{9199}$ is $\bar{2}\cdot0363$, as follows:—

$$\begin{aligned}\text{Logarithm } \frac{100}{9199} &= \text{logarithm } 100 - \text{logarithm } 9199\,; \\ &= 2 - 3\cdot9637, \\ &= \bar{2}\cdot0363.\end{aligned}$$

$\bar{2}\cdot0363$ is therefore added to each logarithm given in the third column, and the result, as given in the fourth column, is the logarithm of the percentage required. By finding the natural numbers of the logarithms in the fourth column the percentage to Sales is found. These percentages are not absolutely correct in the last figure of the decimal, but are usually sufficiently accurate for practical purposes.

SECOND METHOD.—*Using Tables of Products.*

The divisor is 9199, and to form a table of products it is only necessary to write the numbers from 1 to 10 underneath each other. Opposite 1 put 9199; also place 9199 at the foot of a slip of paper; place it over the 9199 opposite the 1, and add it to the 9199, placing the sum opposite the 2; again add 9199 to the figure opposite the 2, which will give the figure to go opposite the 3, and so on. When 10 is reached, the accuracy of the intervening figures is at once proved by the figure opposite 10 being the same figure as that opposite 1 multiplied by 10. The table so produced is simply an extended multiplication table, and, instead of multiplying, reference is merely made to the table and the figures copied down. The working may be

still further simplified by adopting the rules of contracted division, as shown in the second half of the figures given. The table of products in this case would be as follows :—

1	9199
2	18398
3	27597
4	36796
5	45995
6	55194
7	64393
8	73592
9	82791
10	91990

Using the above table of products, the working of the first half of the items, using the ordinary method of division, is as follows :—

1. Cost of goods.

```
9199)305900(33·253
     27597
     ------
      29930
      27597
      ------
       23330
       18398
       -----
        49320
        45995
        -----
         33250
         27597
         -----
```

2. Wages.

```
9199)205300(22·317
     18398
     -----
      21320
      18398
      -----
       29220
       27597
       -----
        16230
         9199
        -----
         70310
         64393
         -----
```

3. Gross profit.

```
9199)408700(44·428
     36796
     -----
      49740
      36796
      -----
       39440
       36796
       -----
        26440
        18398
        -----
         80420
         73592
         -----
```

4. Rent and taxes.

```
9199)63300(6·881
     55194
     -----
      81060
      73592
      -----
       74680
       73592
       -----
        10880
         9199
         ----
```

The working of the other half of the items, using contracted division and the table of products, is as follows:—

5. Trade charges.

```
9199)34000(3·696
     27597
     -----
      6403
      5519
      ----
       884
       828
       ---
        56
        55
        --
```

6. Salaries.

```
9199)26300(2·859
     18398
     -----
      7902
      7359
      ----
       543
       460
       ---
        83
        83
        --
```

7. Bad debts.

```
9199)12000(1·304
     9199
     ----
     2801
     2760
     ----
       41
       37
       --
```

8. Net profit.

```
9199)273100(29·688
     18398
     -----
      89120
      82791
      -----
       6329
       5519
       ----
        810
        736
        ---
         74
         74
         --
```

THIRD METHOD.—*Reducing the Divisor to a Decimal and Multiplying.*

The divisor is 9199, and this reduced to a decimal is ·0001087. Any of the items multiplied by this figure would give the amount per unit, and in order to get the amount per cent it is necessary to multiply this figure by 100. The different items are, therefore, multiplied by ·01087, and the results are the percentages of these items to Sales.

This method may be still further simplified by using the contracted method of multiplication, as shown in the working-out of the second half of the items.

1. Cost of goods.

```
    3059
  ·01087
  -------
  ·21413
 2·4472
30·590
-------
33·25133
```

2. Wages.

```
    2053
  ·01087
  -------
  ·14371
 1·6424
20·530
-------
22·31611
```

3. Gross profit

4087	
·01087	
·28609	
3·2696	
40·870	
44·42569	

4. Rent and taxes.

633	
·01087	
·04431	
·5064	
6·330	
6·88071	

Using the contracted method of multiplication, the working of the second half of the items is as follows:—

5. Trade charges.

340	
·01087	
3400	
272	
24	
3·696	

6. Salaries.

263	
·01087	
2630	
210	
18	
2·858	

7. Bad debts.

120	
·01087	
1200	
96	
8	
1·304	

8. Net profit.

2731	
·01087	
27310	
2185	
191	
29·686	

PROFIT AND LOSS ACCOUNT

OF MILITARY TAILOR AND CLOTHIER

Showing Percentages.

Expenditure.	Per Cent of Sales.		*Income.*	Per Cent of Sales.	
To Cost of goods	33·25	£3059	By Sales	100·00	£9199
,, Wages	22·32	2053			
	55·57	£5112			
,, Gross profit carried down	44·43	4087			
	100·00	£9199		100·00	£9199
To Rent and taxes	6·88	£633	By Gross profit brought down	44·43	£4087
,, Trade charges	3·70	340			
,, Salaries	2·86	263			
,, Bad debts	1·30	120			
	14·74	£1356			
,, Net profit	29·69	2731			
	44·43	£4087		44·43	£4087

In filling up the above statement the results by the second method have been adopted, as these are more correct than by the first method, although for practical purposes either of the other methods is usually quite satisfactory.

Curves and Diagrams.

For showing the rise and fall of purchases, sales, charges, gross profit, and net profit, the graphic method of demonstration is of considerable value. The study of such graphs enables those who have little knowledge of the relative values of numbers to grasp at once the trend of a series of figures. The graphic method of displaying comparative results of all kinds in connection with commerce is of immense value. It is impossible to grasp the correct meaning of column after column of figures, and even when these are reduced to percentages the difficulty is still great. When, however, the figures are displayed in the form of

diagrams or curves, their effect is at once apparent, and valuable hints may be derived from the study of the resulting curves. The subjects to which this method may be applied are numerous, and of course the results vary considerably.

Thus, in an engineering establishment the tons of coal consumed each month may be shown by taking a sheet of paper ruled into small squares, sometimes called logarithmic paper, through being used to a large extent for calculations in which logarithms are used. The vertical divisions may be taken to represent hundreds of tons, and the horizontal divisions to represent time in months. By this means the coal consumed may be compared one year with another, and the effect of the introduction of a new system of heating or a new kind of coal may be at once seen. In the event of the engine being stopped for any number of days this would require of course to be carefully noted, and duly allowed for.

Where it is desired to arrive at an average in complicated cases, in which the paucity of the data makes other methods unreliable, the graphical method is of great assistance. The facts are recorded by small dots in pencil, and when these have been completed a curve is run through among these dots in ink, which forms the average.

RECONCILIATION STATEMENTS

When an accountant is employed to prepare Profit and Loss Accounts of a concern where such accounts have already been regularly prepared, either by the managers of the concern or by some other accountant, the resulting Profit and Loss Accounts often differ from those already in existence. In such cases it is of great advantage to have the new accounts reconciled with the old. In arbitration cases, for example, the accountants on the two sides may submit Profit and Loss Accounts which differ considerably, and it is of great advantage to have a concise statement showing exactly where the differences occur. The details of

the accounts may be very conveniently compared by placing the items of each account in parallel money columns with other two money columns showing the increase and the decrease opposite each item. By this means the items in which the two accounts differ are at once seen, and the differences are narrowed down so as to be readily discussed. The statement prepared should be such an one as counsel—who, as a rule, have little liking for figures—can readily comprehend, and if it is advisable that it should be lodged in process it should be such a statement as will appeal to the arbiter. Items which appear in one account for which there are no corresponding items in the other would be at once apparent, as well as items which were the same in both accounts. From this statement a further statement could be prepared showing the differences, and explaining them in detail. The accountant would then have statements to submit to his own counsel or to the arbiter showing exactly the differences and how they were accounted for. Thus, supposing the capital of a trust estate had been given as £8000, and that after you had examined the accounts you found that the capital amounted to £7897, you would have some such paragraph in your report as follows: "The amount of the capital of the estate as given by the defenders is £8000, the amount of the capital as shown in the abstract appended to this report is £7897, a decrease of £103, which is accounted for thus:—

"The following payments which have been charged against Revenue should be charged against Capital:—

"June 30. Duplicand in connection with the London Road property . .	£40	0	0
"July 3. Law expenses in connection with the allocation of Oswald Street feu-duty	3	0	0
"14. Cost of new pavement at London Road property required by local authority	60	0	0
"Decrease as above . . .	£103	0	0"

A Reconciliation Statement in connection with a firm's profits, prepared for the information of counsel, is also submitted.

STATEMENT prepared by JOHN SCOTT, C.A., for the information of Counsel, reconciling the Net Profit of the firm of Messrs. Craig & Young for the year, as shown in the Statement prepared by the Claimant's Accountants, with the true Net Profit.

Profit for year, as per statement submitted by firm's accountants							£2047	8 9
DEDUCTIONS :—								
Rent of premises, as per Valuation Roll, which should be charged				£120	0	0		
Depreciation on furniture, fittings, machinery, etc. .				50	0	0		
Sum included under donations, but really chargeable as expenses . . .				1	12	7		
				£171	12	7		
Provision for bad debts :—5 per cent on £16,022 6s. 5d. of sales				801	2	3		
				£972	14	10		
ADDITIONS :—								
Donations and charities, sum charged before arriving at net profit given above . .	£61	19	1					
Bad debts actually incurred . .	185	9	0					
Carry forward	£247	8	1	£972	14	10	£2047	8 9

Brought forward	£247	8	1	£972	14	10	£2047	8	9
New packing machine, purchased 5th January, and debited erroneously to Charges	120	16	0						
Interest on bonds for £1900 over buildings, debited erroneously to Charges	78	0	0						
				446	4	1			
							526	10	9
True net profit as certified by accountant							£1520	18	0

THE DUTIES AND RESPONSIBILITIES OF AN AUDITOR

The duties and responsibilities of an auditor are to a large extent undefined, but the tendency of recent decisions is to make an auditor's responsibilities much greater than formerly. It is the auditor's duty to conscientiously employ every faculty, and exercise every precaution, to the utmost of his ability, in conserving the rights of his clients and arriving at the true results disclosed by his examination and audit of the accounts submitted to him. His report on his examination should be prepared with the utmost impartiality, and he should see that his clients are thoroughly informed upon all important matters which may have arisen in the course of his work.

The examination of accounts by an auditor is undertaken for the following purposes:—

1. To detect any error, whether of omission or commission.
2. To see that the accounts are so stated as to give all information required for economical management and organisation, and to expose any extravagance to those interested.

3. To ascertain that all regulations of a financial kind, whether contained in Acts of Parliament, deeds of co-partnery, agreements, resolutions, or other regulations which apply to the accounts under examination, have been properly complied with.
4. To certify the accuracy of the accounts.

The auditor should inspect all vouchers, contracts, securities, and other evidence which instruct the receipts and payments. All vouchers should be initialled in red ink or stamped to prevent their being used again. No voucher for a payment should be accepted of which the details are not known or given, but which merely states "to balance due." It is sometimes necessary to examine the paid cheques, both as to date and endorsation, to see that a payment was really made to the proper party at the time stated. The auditor should also have produced to him satisfactory vouchers in support of the various assets in the Balance Sheet, both as regards their existence and the value put upon them. He should personally inspect and initial all bonds, stock certificates, and other evidence of the existence of the assets. The values put upon all stocks and shares can be readily verified by reference to the published lists which the auditor should keep filed in his office.

It is one of the auditor's most important and most difficult duties to see that suitable provision is made for all probable losses, that proper reserves are made, and that all sinking funds have the proper sum placed to their account.

An auditor should be specially careful that nothing which should be charged to Revenue has been capitalised, and that an adequate sum has been charged against Revenue for depreciation. Such assets as preliminary expenses, expiring patent rights, and goodwill should be carefully scrutinised in order to determine that they have been in the past sufficiently written down, and that the value put upon them is reasonable. The auditor should also see that full provision has been made for bad debts, discounts, etc. He should also satisfy himself that all accrued liabilities in respect of rent, taxes, wages, etc., have been provided for. He should see that stock has been taken at cost, and that

all assets are fairly stated and every liability included in the Balance Sheet.

First Audits.

In auditing the accounts of a business for the first time the auditor should have submitted to him a complete list of the books kept, and he should prepare a list giving the titles of the books, particulars of the period covered by the entries in the books, and the name of the clerk or clerks in charge of each book. In making investigations it is a very good plan for an accountant to initial or stamp each book in some corner where his initials will not be readily seen, but by means of which he will be able to tell at any future time that he has examined the book. It is well also for an auditor or his clerks to initial or stamp all vouchers, securities, contracts, or other important papers produced to him, as he is thus enabled to identify at any future time any books or documents which have passed through his hands.

Cash on Hand.

Where the cash on hand is not regularly paid into bank, so that only a nominal sum appears on hand, the auditor should actually count the cash on hand on the day of the balance. If he does not do so he should check it on the day of his audit by getting the Cash Book written up to date, auditing the entries that have been made since the close of the accounts, and counting the cash on hand on the day of his audit.

The first thing an auditor should do in entering upon his duty of audit of a business is to reconcile the Bank Account with the Bank Pass Book and the certificate of the bank balance signed by the bankers.

Partnership Accounts.

In auditing the accounts of a partnership the auditor should, to begin with, obtain possession of the deed of co-partnery, and make an exact copy of it for his use in

future. He should then prepare short notes on the contract showing the financial regulations which will require to be given effect to. These notes should show the capital subscribed by the partners, the allocation of the profits, the allowance of interest on the partners' Capital Accounts, any limitation of partners' drawings, the date upon which the books are to be balanced, and any stipulation as to the period within which the accounts are to be docquetted as correct and accepted by the partners. The auditor should also take note of the duration of the co-partnery, together with the method of its dissolution. These notes are meant to be referred to at each period of balance, and obviate the necessity of reading over the whole contract at each audit. It is the auditor's duty to see that the accounts are prepared exactly on the lines laid down in the contract, and where any deviation is necessitated it is his duty to get the sanction of the members of the co-partnery. When slight alterations are made on a contract it is convenient to get the partners to sign a short minute endorsed on the deed of co-partnery.

Companies.

In a company audit it is the duty of the auditor to peruse the Prospectus, Memorandum and Articles of Association of the company, together with the minutes both of the directors and of the shareholders' meetings, to see that they contain authority for any of the transactions of the company requiring such authority. The accounts must be prepared in conformity with the regulations of the company, whether these are contained in a special Act or the general Companies Acts. In the case of a first audit, the books relating to the issue of the share capital should be carefully checked with the applications for shares and the letters of allotment which will have been returned to the company in return for the share certificates. The counterfoils of the share certificates should also be checked.

All transactions in connection with the share capital, whether in the allotment book or in the register of

transfers, should be recorded in the minutes of the directors. The item of preliminary expenses, as a rule, requires to be carefully scrutinised. Preliminary expenses consist of the law expenses in connection with the preparation of the Memorandum and Articles of Association, printing these and the Prospectus, issuing the Prospectus, expenses of registration, brokerage or under-writing, stamp duties, etc., which are directly incurred in floating the company. Preliminary expenses should be written off as soon as possible.

Where the title-deeds and other securities instructing the assets of a company are, as is usual, in the custody of the law agents of the company, the auditor, in addition to satisfying himself that the deeds are in existence, should get a list of all such deeds from the law agents, with a certificate appended stating that they are in order, and are held by them for the company.

On the completion of the audit the auditor makes his report to the shareholders in terms of the Companies Consolidation Act, 1908, sec. 113, or any special Act applicable. The shareholders are entitled to rely on their auditor to protect their interests, and his acceptance of office involves his acceptance also of the responsibility of acquainting them with such facts as they ought to be put in possession of.

Partial Audits.

Sometimes an auditor is instructed only to make a partial audit of accounts, and it may be left to him to determine on his own judgment what he should do. In such a case the additions of all the books of original entry should be verified, Journal entries should be carefully scrutinised, and the posting of all goods, revenue, and property accounts should be checked. The Cash Book should, if at all possible, be fully vouched. Where the posting of personal ledgers is not checked, the auditor should endeavour to get the books put upon such a system as will enable him to make the personal ledgers self-balancing by abstracts of them being kept in the General Ledger. In many large concerns it is obviously impossible and inexpedient to check thoroughly at each audit the

whole transactions, and the auditor should therefore vary his work from time to time. This will have the same moral effect upon the staff as a complete audit, as they will be uncertain as to which portion of the work will next come under the close examination of the auditor.

AUDITS

Commercial Accounts.

The steps in the audit of the usual run of commercial accounts may be shortly set forth as under:—

Reconciliation of Bank Pass Book with Bank Account and amount shown in Ledger.

Examination of the vouchers of the Cash Book as to date, amount, sufficiency of voucher and discharge, correctness of entry, specially distinguishing between Revenue and Capital.

Examination of Travellers' Cash Books, Petty Cash Books, Postage Books, and wages sheets.

Summation of Cash Book.

Invoice Book.

Day Book or Sales Book.

Bill Book, bills receivable, accommodation bills.

Journal for opening and closing entries.

Depreciation.

The posting should be checked from the Ledger Accounts outwards, if not of all, certainly of the Profit and Loss and Property Accounts.

Examination of stock sheets, securities, title-deeds, etc.

Comparison of Profit and Loss Account and Balance Sheet with those of previous years.

Preparation of report on audit, giving, where necessary or advisable, percentages.

Office Regulations to prevent Fraud.

The following office regulations have been framed with the view of preventing loss through fraud, and have been found in practice to work satisfactorily:—

Cash received to be paid into bank daily.

All payments to be made by cheque wherever practicable.

The cashier not to keep the personal ledgers.

Counterfoil receipt books to be used, and receipts given for all cash received.

Vouchers to be produced for all payments.

Cash to be balanced daily, and details of cash shown in book kept for the purpose.

Invoices for goods purchased to be initialled as correct by the receiver of the goods, and by the person who ordered them.

Accounts, wages sheets, and statements of payments to be initialled by a partner before being paid.

The extensions of all invoices for goods sold to be checked before the invoices are sent out.

Clerks in charge of personal ledgers to be changed.

Cashier and clerks to take their regular holidays, and in their absence their work to be done as usual by other clerks.

AVERAGE DUE DATE

When sums are due at various dates it is often desirable, instead of paying the sums at the dates when they fall due, to find the date upon which the total sum may be paid so as to equitably give effect to the various dates upon which the various portions of the total sums are payable. This date is called the average due date, or the equated time. To CALCULATE THE AVERAGE DUE DATE UPON WHICH THE TOTAL OF SEVERAL SUMS FALLING DUE AT VARIOUS DATES SHOULD BE PAID, FIX UPON ANY ONE OF THE VARIOUS DATES, AND MULTIPLY THE VARIOUS AMOUNTS BY THE NUMBER OF DAYS BETWEEN THIS DATE AND THE DATES UPON WHICH THE SUMS FALL DUE: DIVIDE THE SUM OF THESE PRODUCTS BY THE SUM OF THE AMOUNTS, AND THE RESULT IS THE NUMBER OF DAYS BETWEEN THE DATE FIXED UPON AND THE AVERAGE DUE DATE. The reason why one of the various dates is

taken as the date to start from is that by doing so one multiplication is saved. In practice it is usual to count either from the first date forwards or from the last date backwards.

Thus, suppose a sum of £1000 is payable as follows :— £250 on 1st February, £50 on 21st March, £500 on 20th May, and £200 on 30th May ; the average due date, or the equated time, upon which the £1000 should be paid is 22nd April. The dates, amounts due, days, and products may be arranged very conveniently in a tabular statement, as follows :—

Date.	Amount due.	Days from 1st February.	Product.
February 1	£250	0	0
March 21	50	48	2,400
May 20	500	108	54,000
30	200	118	23,600
	£1000		80,000

Dividing 80,000 by 1000 gives 80 days from 1st February as the equated time. This may be proved as follows :—

The last sum of £200 is not due until 118 days from the 1st of February, therefore interest on £200 for 118 days must be taken into account ; but interest on £200 for 118 days is the same as interest on their product, namely £23,600, for one day. Similarly, the total interest on the £1000 payable on the dates above from the 1st of February to these dates is the same as interest on the total of the products, namely £80,000, for one day ; but interest on £80,000 for one day is the same as interest on £1000 for $\frac{80,000}{1000}$ days, which is equal to 80 days. Eighty days added to 1st February gives as the equated time upon which the £1000 should be paid 22nd April. That this is the correct time may be shown either by actually working out the interest on the various sums payable on the various dates, and showing that it is

equal to the interest on the £1000 payable on 22nd April, or it may be proved by showing that the products of the sums payable before the equated time equal those payable after the equated time, as follows :—

Sums deferred.	Days to 22nd April.	Product.
February 1. £250	80	20,000
March 21. 50	32	1,600
		21,600

Sum paid in advance.	Days from 22nd April.	Product.
May 20. £500	28	14,000
30. 200	38	7,600
		21,600

Exercises.

1. What is the average due date of the following, viz.—

July 12	£300	0	0
24	100	0	0
Aug. 16	90	0	0
23	250	0	0
	£740	0	0

2. The following sums are due by and to a merchant on the dates given. When should he send his cheque in settlement of the balance?

Due by Merchant.		Due to Merchant.	
Jan. 4	£600	Jan. 15	£100
Feb. 2	200	Feb. 1	300
28	500		

INTEREST ON CURRENT ACCOUNTS

Interest is very often charged on the debit balances and allowed on the credit balances of current accounts.

Thus, in the case of a trust estate the factor might charge the trust interest, say at 5 per cent or at bank overdraft rates, on all monies advanced by him, and might allow the trust interest at, say 2 per cent or at bank deposit receipt rates, on sums belonging to the trust in his hands.

There are various ways in which current accounts with interest are stated, but the working-out of the various methods are either performed by means of interest tables or by products, as now shown.

Let the following be taken as an example of a current account:—

John Smith, Current Account.

June 1.	To Balance	£100	0	0	July 5.	By Cash	£250	0	0
July 1.	,, Goods	300	0	0	Aug. 12.	,, do.	300	0	0
Aug. 4.	,, do.	200	0	0	Nov. 9.	,, do.	350	0	0
Oct. 3.	,, do.	400	0	0	Dec. 12.	,, do.	100	0	0
Dec. 4.	,, do.	150	0	0					

The methods in which the account may have interest charged on it are as follows:—

I.—Using Interest Tables

Form I.

		£	s.	d.	Days.	Interest per Tables. £	s.	d.			£	s.	d.	Days.	Interest per Tables. £	s.	d.
ıne 1	To Balance	100	0	0	213	2	18	$4\frac{1}{4}$	July 5	By Cash	250	0	0	179	6	2	$7\frac{1}{4}$
ıly 1	,, Goods	300	0	0	183	7	10	5	Aug. 12	,, do.	300	0	0	141	5	15	$10\frac{3}{4}$
ug. 4	,, do.	200	0	0	149	4	1	$7\frac{3}{4}$	Nov. 9	,, do.	350	0	0	52	2	9	$10\frac{1}{2}$
ct. 3	,, do.	400	0	0	89	4	17	$6\frac{1}{2}$	Dec. 12	,, do.	100	0	0	19	0	5	$2\frac{1}{2}$
ec. 4	,, do.	150	0	0	27	0	11	$1\frac{1}{4}$	31	,, Balance of interest					5	5	$5\frac{3}{4}$
31	,, Interest	5	5	$5\frac{3}{4}$						,, Balance, including interest	155	5	$5\frac{3}{4}$				
		1155	5	$5\frac{3}{4}$		19	19	$0\frac{3}{4}$			1155	5	$5\frac{3}{4}$		19	19	$0\frac{3}{4}$
n. 1	To Balance	155	5	$5\frac{3}{4}$													

In the above example interest is charged at the rate of 5 per cent on the debit items and allowed at the same rate on the credit items up to 31st December. The difference between the two interest columns gives the interest due on the whole account for the year.

Another way of arriving at the same result is by calculating interest on the balances from day to day. The account would, in this case, appear as follows :—

Form II.

				Days.	Interest per Tables.
June 1.	To Balance .		£100 0 0	30	£0 8 2¾
July 1.	,, Goods .		300 0 0		
		Dr.	£400 0 0	4	0 4 4½
5.	By Cash . .		250 0 0		
		Dr.	£150 0 0	30	0 12 4
Aug. 4.	To Goods .		200 0 0		
		Dr.	£350 0 0	8	0 7 8¼
12.	By Cash . .		300 0 0		
		Dr.	£50 0 0	52	0 7 1½
Oct. 3.	To Goods .		400 0 0		
		Dr.	£450 0 0	37	2 5 7¼
Nov. 9.	By Cash . .		350 0 0		
		Dr.	£100 0 0	25	0 6 10
Dec. 4.	To Goods .		150 0 0		
		Dr.	£250 0 0	8	0 5 5¾
12.	By Cash . .		100 0 0		
		Dr.	£150 0 0	19	0 7 9¾
31.	To Interest .		5 5 5¾		
Balance due . . .			£155 5 5¾		£5 5 5¾

II.—By means of Products

The other method of calculating interest is by means of products, and the foregoing example, with interest calculated in this way, would appear as follows :—

Form III.

					Days.	Products.						Days.	Products.
		£	s.	d.					£	s.	d.		
June 1	To Balance	100	0	0	213	21,300	July 5	By Cash .	250	0	0	179	44,750
July 1	,, Goods .	300	0	0	183	54,900	Aug. 12	,, do. .	300	0	0	141	42,300
Aug. 4	,, do. .	200	0	0	149	29,800	Nov. 9	,, do. .	350	0	0	52	18,200
Oct. 3	,, do. .	400	0	0	89	35,600	Dec. 12	,, do. .	100	0	0	19	1,900
Dec. 4	,, do. .	150	0	0	27	4,050	31	,, Balance of interest numbers					38,500
31	,, Interest	5	5	$5\frac{3}{4}$				,, Balance, including interest .	155	5	$5\frac{3}{4}$		
		1155	5	$5\frac{3}{4}$		145,650			1155	5	$5\frac{3}{4}$		145,650
Jan. 1	To Balance	155	5	$5\frac{3}{4}$									

The rule for arriving at the interest by means of products is as follows:—

Multiply each item in the account by the number of days from its date to the date of settlement, or to any given date to which it is desired to find the interest. Take the balance of the products, multiply by twice the rate per cent, and divide by 73,000. This gives the interest on the account.

If the interest on the debit and credit sides is at different rates, the multiplication by twice the rate should be performed on the totals of the two sides, and thereafter the balance should be divided by 73,000.

In the example given the balance of interest numbers is 38,500. Twice the rate per cent, which is 5 per cent, is 10. Then 38,500 multiplied by 10 gives 385,000. Dividing 385,000 by 73,000 we get £5 : 5s. $5\frac{3}{4}$d., as follows, using contracted division:—

73000)385000(5·2739 = £5 : 5s. 5¾d.
365000

20000
14600

5400
5110

290
219

71
66

Working out this example by products, but taking the balances from day to day, the account would appear as follows :—

Form IV.

				Days.	Products.
June 1.	To Balance .		£100 0 0	30	3,000
July 1.	,, Goods .		300 0 0		
		Dr.	£400 0 0	4	1,600
5.	By Cash . .		250 0 0		
		Dr.	£150 0 0	30	4,500
Aug. 4.	To Goods .		200 0 0		
		Dr.	£350 0 0	8	2,800
12.	By Cash . .		300 0 0		
		Dr.	£50 0 0	52	2,600
Oct. 3.	To Goods .		400 0 0		
		Dr.	£450 0 0	37	16,650
Nov. 9.	By Cash . .		350 0 0		
		Dr.	£100 0 0	25	2,500
Dec. 4.	To Goods .		150 0 0		
		Dr.	£250 0 0	8	2,000
12.	By Cash . .		100 0 0		
		Dr.	£150 0 0	19	2,850
31.	To Interest .		5 5 5¾		
	Balance due .		£155 5 5¾		38,500

USING INTEREST TABLES

JOHN SMITH—*Current Account.*

Interest at 5 per cent on Debit Items, and 3 per cent on Credit Items.

		£	s.	d.	Days.	Interest at 5 per cent per Tables. £	s.	d.			£	s.	d.	Days.	Interest at 3 per cent per Tables. £	s.	d.
ne 1	To Balance	100	0	0	213	2	18	$4\frac{1}{4}$	July 5	By Cash .	250	0	0	179	3	13	$6\frac{1}{2}$
ly 1	,, Goods .	300	0	0	183	7	10	5	Aug. 12	,, do. .	300	0	0	141	3	9	$6\frac{1}{2}$
ug. 4	,, do. .	200	0	0	149	4	1	$7\frac{3}{4}$	Nov. 9	,, do. .	350	0	0	52	1	9	$10\frac{3}{4}$
ct. 3	,, do. .	400	0	0	89	4	17	$6\frac{1}{2}$	Dec. 12	,, do. .	100	0	0	19	0	3	$1\frac{1}{2}$
ec. 4	,, do. .	150	0	0	27	0	11	$1\frac{1}{4}$	31	,, Balance of interest					11	2	$11\frac{1}{2}$
31	,, Interest	11	2	$11\frac{1}{2}$						,, Balance	161	2	$11\frac{1}{2}$				
		1161	2	$11\frac{1}{2}$		19	19	$0\frac{3}{4}$			1161	2	$11\frac{1}{2}$		19	19	$0\frac{3}{4}$
n. 1	To Balance	161	2	$11\frac{1}{2}$													

BY MEANS OF PRODUCTS

JOHN SMITH—*Current Account.*

Interest at 5 per cent on Debit Items, and 3 per cent on Credit Items.

		£	s.	d.	Days.	Products.				£	s.	d.	Days.	Products.
ne 1	To Balance	100	0	0	213	21,300	July 5	By Cash .	250	0	0	179	44,750
ly 1	,, Goods .	300	0	0	183	54,900	Aug. 12	,, do. .	300	0	0	141	42,300
g. 4	,, do. .	200	0	0	149	29,800	Nov. 9	,, do. .	350	0	0	52	18,200
t. 3	,, do. .	400	0	0	89	35,600	Dec. 12	,, do. .	100	0	0	19	1,900
c. 4	,, do. .	150	0	0	27	4,050							
31	,, Interest	11	2	11		145,650							107,150
						10							6
						1,456,500							642,900
							31	,, Balance of interest numbers					813,600
								,, Balance	161	2	11		
		1161	2	11		1,456,500			1161	2	11		1,456,500
n. 1	To Balance	161	2	11									

In Forms I. to IV. given, interest has been charged and allowed on the debit and credit items at the same rate. Very often, however, interest at one rate is charged on the debit items, and interest at another rate on the credit items.

Suppose that 5 per cent is to be charged on the debit items and 3 per cent on the credit items, then the account would appear as given on the previous page.

The calculation by interest tables is very simple, as 3 per cent is merely substituted instead of 5 per cent.

The working by products is slightly different. After obtaining the total of the products on the debit and credit sides, namely 145,650 and 107,150, the total of the debit side is multiplied by 10, being twice the rate per cent, which is 5 per cent for debit items, and the total of the credit side is multiplied by 6, being twice the rate per cent which is 3 per cent for credit items. The balance of products, namely 813,600, is divided by 73,000, which gives £11 : 2s. 11d., as follows :—

```
73000)813600(11·145 = £11 : 2s. 11d.
      73000
      -----
      83600
      73000
      -----
      10600
       7300
       ----
       3300
       2920
       ----
        380
        365
        ---
```

In this case, where the rates of interest charged and allowed are different, there occurs a difference of $\frac{1}{2}$d. between the interest per the tables and that calculated by products. The interest as calculated by products is the more correct method, because fractional parts are not taken into account in the interest tables.

RULE FOR EXPRESSING SHILLINGS, PENCE, AND FARTHINGS AS DECIMALS OF £1.

In the first decimal place put the number of florins contained in the given number of shillings. If there be an odd shilling put 5 in the second place. Reduce the pence and farthings to farthings, and put the number in the third place, or the second and third places if it be ten or more, adding 1 if the amount be 6d. or more. The first three decimal places are now complete. To complete the fraction it only remains to divide the pence and farthings, expressed as the decimal of a penny, by 6, and insert the quotient in the fourth and following places. If the pence and farthings are 6d. or more, deduct 6d before dividing, for otherwise the first figure of the quotient would be 1, belonging to the third place, which has been allowed for already.

Examples.

I.—£3 : 16s. $5\frac{1}{4}$d.

Integer, £3	=	£3
1st decimal place, 16s. = 8 florins	=	·8
2nd and 3rd decimal places, $5\frac{1}{4}$d. = 21 farthings	=	·021
4th and following places, 5·25 ÷ 6	=	·000875
		£3·821875

which is the decimal required.

II.—£8 : 19s. $8\frac{3}{4}$d.

Integer, £8	= £8	
1st and 2nd decimal places, 19s. = 9 florins and 1s.	=	·95
2nd and 3rd decimal places, $8\frac{3}{4}$d. = 35 farthings, and add 1	=	·036
4th and following places, 8·75, less 6, and divide by 6	=	·000458333 . . .
		£8·986458$\dot{3}$

the decimal required.

III.—£3 : 19s. 7·738d.

Here multiply the fraction of a penny by 4 to bring it to farthings, ·738d. = 2·952 farthings. Now proceed as before :—

Pounds and shillings	= £3·95
Pence and farthings, 28 + 2·952, and add 1 =	·031952
Addendum, 7·738, less 6d., and divide by 6 =	·0002896666 . .
	£3·9822416̇

To express Decimals of a Pound in Shillings and Pence.

To transform a sum in decimals into pounds, shillings, and pence the simplest course is first to extract the pounds and shillings, and then multiply the remainder of the fraction by 240, to bring it to pence. Take the same three examples:—

I.—£3·821875

	3·8	= £3 16 0
* This is evidently between 5d. and 6d., for by the rule 5d. is ·020 . . . and 6d. ·025	* ·021875 12	
	·2625 20	
	5·25	= 0 0 5¼
		£3 16 5¼

II.—£8·9864583̇

	8·95	= £8 19 0
* This is evidently between 8d. and 9d., for 8d. is ·033 . . . and 9d. is ·037 . . .	* ·0364583̇ 12	
	·4375000 20	
	8·750	= 0 0 8¾
		£8 19 8¾

III.—£3·9822416̇

	3·95	=	£3	19 0
* This is evidently between 7d. and 8d., for 7d. is ·029 and 8d. is ·033	* ·0322416̇			
	12			
	·3869000			
	20			
	7·738	=	0	0 7·738
			£3	19 7·738

FOUR-PLACE LOGARITHMS

The theory of logarithms can only be understood by those who have a knowledge of the algebraic laws of indices, but logarithms may be used by all having a knowledge of the elementary rules of arithmetic.

If N and x be numbers, and

$$N = 10^x$$

then x is the logarithm of N to base 10, and is the index of the power to which the base must be raised in order to produce the number. Thus, if $N = 100$, we have

$$100 = 10^2,$$

and 2 is the logarithm of 100 to the base 10.

The base of the common table of logarithms is 10. The logarithms of multiples of 10 are shown in the following table:—

Number.	Equivalent.	Logarithm of Number.
10,000	10^4	4
1,000	10^3	3
100	10^2	2
10	10^1	1
1	10^0	0
·1	10^{-1}	−1
·01	10^{-2}	−2
·001	10^{-3}	−3
·0001	10^{-4}	−4

Since the logarithm of $10{,}000 = 4$, and the logarithm of $1000 = 3$, it is evident that the logarithm of all the numbers between 10,000 and 1000, such as 8432, must be 3 plus a fraction. This fraction is expressed as a decimal fraction, and is called the *mantissa* of the logarithm, the integral part being called the *characteristic.*

Similarly, the logarithm of ·0001 being -4, and the logarithm of ·001 being -3, all numbers between must have as their logarithm -3 and a fraction, or -4 plus a fraction. For the sake of readiness in computation it is as a rule only the characteristic that is used negatively, and the mantissa is expressed positively. Hence the characteristic of the logarithm of any number having an integral part is positive, and is one less than the number of digits in the integral part.

The characteristic of the logarithm of any number having no integral part is negative, and is one more than the number of zeros that follow the decimal part. The minus sign is written above the characteristic.

The characteristic to base 10 of the logarithm of any number can thus be determined by inspection, and this is why logarithms to base 10 are used in practical calculations to the exclusion of all others.

To find the Mantissa or Decimal Part of a Logarithm, using the Four-place Table of Logarithms.

Suppose it is required to find the logarithm of 62·37.

It is evident that the integral portion of the logarithm is 1. To find the decimal portion, referring to the Table of Logarithms, we find 62 in the first column on the second page. Then, opposite 62 and under 3 will be found 7945. This is the logarithm of 623. For the 7, referring on the same line to the columns of differences, and under 7 there is 5, which must be added to the figures already found, making 7950. Hence

$$\log 62{\cdot}37 = 1{\cdot}7950.$$

To find the Number corresponding to a Logarithm.

Suppose the logarithm is 1·7950. Then the characteristic being 1, it is evident that the number contains two figures in the integral part. To find the digits, referring to the Table of Anti-logarithms, on the second page in the first column going to the line ·79 and under 5 will be found 6237. Hence the number required is 62·37. Had there been another figure in the logarithm, by referring to the table of differences on the same line as the ·79 the figure to add would have been found.

The following are the leading properties of logarithms :—

(1) The logarithm of the product of numbers is the sum of the logarithms of the numbers.
(2) The logarithm of the quotient of two positive numbers is the excess of the logarithm of the dividend over the logarithm of the divisor.
(3) The logarithm of any power of a number is equal to the logarithm of the number multiplied by the index of the power.

If m, n, and x are any numbers, these properties may be shown thus :—

(1) Multiplication—
$$\log mn = \log m + \log n.$$
(2) Division—
$$\log \frac{m}{n} = \log m - \log n.$$
(3) Involution—
$$\log m^x = x \log m.$$

To multiply 68·43 by 3·6912 :—

$$\log 68{\cdot}43 = 1{\cdot}8353$$
$$\log 3{\cdot}6912 = 0{\cdot}5671$$

Adding, we have $2{\cdot}4024 = \log 252{\cdot}6$.

The exact answer is 252·588816. Four-place logarithms should only be used where we do not require accuracy in the fourth significant figure.

To divide 7·107 by ·2369 :—

$$\log 7{\cdot}107 = 0{\cdot}8517$$
$$\log {\cdot}2369 = \bar{1}{\cdot}3746$$

Subtracting, we have $1{\cdot}4771 = \log 30$.

To find the value of ·7107 cubed :—

$$\log {\cdot}7107 = \bar{1}{\cdot}8517$$
multiplying 3

$$\bar{1}{\cdot}5551 = \log {\cdot}3590$$

The exact figure is ·358970654043.

To find the cube root of

·358970654043

we have

$$\log {\cdot}3590 = \bar{1}{\cdot}5551,$$

dividing by 3, we have

$$\frac{-3 + 2{\cdot}5551}{3}$$
$$= \bar{1}{\cdot}8517$$
$$= \log {\cdot}7108.$$

This is 1 too much in the fourth place.

TABLE

For finding the Days between two given Dates within Two Years

The following table is to facilitate the finding of the number of days between any two dates within two years of each other. The method of using the table is very simple. If the tabular number opposite the earlier date is subtracted from the tabular number opposite the later date, the difference is the number of days between the two dates. Thus, to find the number of days between 17th August and 15th May in the following year we have—

15th May	500
17th August	229
Number of days in period . .	271

TABLE FOR FINDING THE DAYS BETWEE

Jan.		Feb.		Mar.		April.		May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	1	32	1	60	1	91	1 121	1 152	1 182	1 213	1 244	1 274	1 305	1 33
2	2	2	33	2	61	2	92	2 122	2 153	2 183	2 214	2 245	2 275	2 306	2 33
3	3	3	34	3	62	3	93	3 123	3 154	3 184	3 215	3 246	3 276	3 307	3 33
4	4	4	35	4	63	4	94	4 124	4 155	4 185	4 216	4 247	4 277	4 308	4 33
5	5	5	36	5	64	5	95	5 125	5 156	5 186	5 217	5 248	5 278	5 309	5 33
6	6	6	37	6	65	6	96	6 126	6 157	6 187	6 218	6 249	6 279	6 310	6 34
7	7	7	38	7	66	7	97	7 127	7 158	7 188	7 219	7 250	7 280	7 311	7 34
8	8	8	39	8	67	8	98	8 128	8 159	8 189	8 220	8 251	8 281	8 312	8 34
9	9	9	40	9	68	9	99	9 129	9 160	9 190	9 221	9 252	9 282	9 313	9 34
10	10	10	41	10	69	10	100	10 130	10 161	10 191	10 222	10 253	10 283	10 314	10 34
11	11	11	42	11	70	11	101	11 131	11 162	11 192	11 223	11 254	11 284	11 315	11 34
12	12	12	43	12	71	12	102	12 132	12 163	12 193	12 224	12 255	12 285	12 316	12 34
13	13	13	44	13	72	13	103	13 133	13 164	13 194	13 225	13 256	13 286	13 317	13 34
14	14	14	45	14	73	14	104	14 134	14 165	14 195	14 226	14 257	14 287	14 318	14 34
15	15	15	46	15	74	15	105	15 135	15 166	15 196	15 227	15 258	15 288	15 319	15 34
16	16	16	47	16	75	16	106	16 136	16 167	16 197	16 228	16 259	16 289	16 320	16 35
17	17	17	48	17	76	17	107	17 137	17 168	17 198	17 229	17 260	17 290	17 321	17 35
18	18	18	49	18	77	18	108	18 138	18 169	18 199	18 230	18 261	18 291	18 322	18 35
19	19	19	50	19	78	19	109	19 139	19 170	19 200	19 231	19 262	19 292	19 323	19 35
20	20	20	51	20	79	20	110	20 140	20 171	20 201	20 232	20 263	20 293	20 324	20 35
21	21	21	52	21	80	21	111	21 141	21 172	21 202	21 233	21 264	21 294	21 325	21 35
22	22	22	53	22	81	22	112	22 142	22 173	22 203	22 234	22 265	22 295	22 326	22 35
23	23	23	54	23	82	23	113	23 143	23 174	23 204	23 235	23 266	23 296	23 327	23 35
24	24	24	55	24	83	24	114	24 144	24 175	24 205	24 236	24 267	24 297	24 328	24 35
25	25	25	56	25	84	25	115	25 145	25 176	25 206	25 237	25 268	25 298	25 329	25 35
26	26	26	57	26	85	26	116	26 146	26 177	26 207	26 238	26 269	26 299	26 330	26 35
27	27	27	58	27	86	27	117	27 147	27 178	27 208	27 239	27 270	27 300	27 331	27 35
28	28	28	59	28	87	28	118	28 148	28 179	28 209	28 240	28 271	28 301	28 332	28 35
29	29			29	88	29	119	29 149	29 180	29 210	29 241	29 272	29 302	29 333	29 35
30	30			30	89	30	120	30 150	30 181	30 211	30 242	30 273	30 303	30 334	30 35
31	31			31	90			31 151		31 212	31 243		31 304		31 35

N.B.—In leap years, when the period includes 29th Febru

TWO GIVEN DATES WITHIN TWO YEARS

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1 366	1 397	1 425	1 456	1 486	1 517	1 547	1 578	1 609	1 639	1 670	1 700
2 367	2 398	2 426	2 457	2 487	2 518	2 548	2 579	2 610	2 640	2 671	2 701
3 368	3 399	3 427	3 458	3 488	3 519	3 549	3 580	3 611	3 641	3 672	3 702
4 369	4 400	4 428	4 459	4 489	4 520	4 550	4 581	4 612	4 642	4 673	4 703
5 370	5 401	5 429	5 460	5 490	5 521	5 551	5 582	5 613	5 643	5 674	5 704
6 371	6 402	6 430	6 461	6 491	6 522	6 552	6 583	6 614	6 644	6 675	6 705
7 372	7 403	7 431	7 462	7 492	7 523	7 553	7 584	7 615	7 645	7 676	7 706
8 373	8 404	8 432	8 463	8 493	8 524	8 554	8 585	8 616	8 646	8 677	8 707
9 374	9 405	9 433	9 464	9 494	9 525	9 555	9 586	9 617	9 647	9 678	9 708
10 375	10 406	10 434	10 465	10 495	10 526	10 556	10 587	10 618	10 648	10 679	10 709
11 376	11 407	11 435	11 466	11 496	11 527	11 557	11 588	11 619	11 649	11 680	11 710
12 377	12 408	12 436	12 467	12 497	12 528	12 558	12 589	12 620	12 650	12 681	12 711
13 378	13 409	13 437	13 468	13 498	13 529	13 559	13 590	13 621	13 651	13 682	13 712
14 379	14 410	14 438	14 469	14 499	14 530	14 560	14 591	14 622	14 652	14 683	14 713
15 380	15 411	15 439	15 470	15 500	15 531	15 561	15 592	15 623	15 653	15 684	15 714
16 381	16 412	16 440	16 471	16 501	16 532	16 562	16 593	16 624	16 654	16 685	16 715
17 382	17 413	17 441	17 472	17 502	17 533	17 563	17 594	17 625	17 655	17 686	17 716
18 383	18 414	18 442	18 473	18 503	18 534	18 564	18 595	18 626	18 656	18 687	18 717
19 384	19 415	19 443	19 474	19 504	19 535	19 565	19 596	19 627	19 657	19 688	19 718
20 385	20 416	20 444	20 475	20 505	20 536	20 566	20 597	20 628	20 658	20 689	20 719
21 386	21 417	21 445	21 476	21 506	21 537	21 567	21 598	21 629	21 659	21 690	21 720
22 387	22 418	22 446	22 477	22 507	22 538	22 568	22 599	22 630	22 660	22 691	22 721
23 388	23 419	23 447	23 478	23 508	23 539	23 569	23 600	23 631	23 661	23 692	23 722
24 389	24 420	24 448	24 479	24 509	24 540	24 570	24 601	24 632	24 662	24 693	24 723
25 390	25 421	25 449	25 480	25 510	25 541	25 571	25 602	25 633	25 663	25 694	25 724
26 391	26 422	26 450	26 481	26 511	26 542	26 572	26 603	26 634	26 664	26 695	26 725
27 392	27 423	27 451	27 482	27 512	27 543	27 573	27 604	27 635	27 665	27 696	27 726
28 393	28 424	28 452	28 483	28 513	28 544	28 574	28 605	28 636	28 666	28 697	28 727
29 394		29 453	29 484	29 514	29 545	29 575	29 606	29 637	29 667	29 698	29 728
30 395		30 454	30 485	30 515	30 546	30 576	30 607	30 638	30 668	30 699	30 729
31 396		31 455		31 516		31 577	31 608		31 669		31 730

one day must be added to the result deduced from the table.

TABLE

Showing Days as Decimal Fractions of a Year of 365 Days

The table, showing what decimal of a year of 365 days any number of days less than a year is, which is given on the next two pages, is of considerable service in solving questions of interest and apportionment, more especially where the rates involved are those for which ordinary interest tables do not exist.

Thus, to find the interest on £50 for 108 days at $3\frac{1}{8}$ per cent, we have—

108 days = ·2959 of a year,
$3\frac{1}{8}$ = ·03125 per £1, and
£50 × ·2959 × ·03125 = ·46234375 = 9s. 3d.

Also, to apportion £100 per annum for 108 days, we have—

£100 × ·2959 = £29·59 = £29 : 11s. 10d.

Days as Decimal Fractions

Days.	Decimal of a Year.	Days.	Decimal of a Year.	Days.	Decimal of a Year.	Days.	Decimal of a Year.
1	·0027	47	·1288	92	·2521	138	·3781
2	·0055	48	·1315	93	·2548	139	·3808
3	·0082	49	·1342	94	·2575	140	·3836
4	·0110	50	·1370	95	·2603	141	·3863
5	·0137	51	·1397	96	·2630	142	·3890
6	·0164	52	·1425	97	·2658	143	·3918
7	·0192	53	·1452	98	·2685	144	·3945
8	·0219	54	·1479	99	·2712	145	·3973
9	·0247	55	·1507	100	·2740	146	·4000
10	·0274	56	·1534	101	·2767	147	·4027
11	·0301	57	·1562	102	·2795	148	·4055
12	·0329	58	·1589	103	·2822	149	·4082
13	·0356	59	·1616	104	·2849	150	·4110
14	·0384	60	·1644	105	·2877	151	·4137
15	·0411	61	·1671	106	·2904	152	·4164
16	·0438	62	·1699	107	·2932	153	·4192
17	·0466	63	·1726	108	·2959	154	·4219
18	·0493	64	·1753	109	·2986	155	·4247
19	·0521	65	·1781	110	·3014	156	·4274
20	·0548	66	·1808	111	·3041	157	·4301
21	·0575	67	·1836	112	·3068	158	·4329
22	·0603	68	·1863	113	·3096	159	·4356
23	·0630	69	·1890	114	·3123	160	·4384
24	·0658	70	·1918	115	·3151	161	·4411
25	·0685	71	·1945	116	·3178	162	·4438
26	·0712	72	·1973	117	·3205	163	·4466
27	·0740	73	·2000	118	·3233	164	·4493
28	·0767	74	·2027	119	·3260	165	·4521
29	·0795	75	·2055	120	·3288	166	·4548
30	·0822	76	·2082	121	·3315	167	·4575
31	·0849	77	·2110	122	·3342	168	·4603
32	·0877	78	·2137	123	·3370	169	·4630
33	·0904	79	·2164	124	·3397	170	·4658
34	·0932	80	·2192	125	·3425	171	·4685
35	·0959	81	·2219	126	·3452	172	·4712
36	·0986	82	·2247	127	·3479	173	·4740
37	·1014	83	·2274	128	·3507	174	·4767
38	·1041	84	·2301	129	·3534	175	·4795
39	·1068	85	·2329	130	·3562	176	·4822
40	·1096	86	·2356	131	·3589	177	·4849
41	·1123	87	·2384	132	·3616	178	·4877
42	·1151	88	·2411	133	·3644	179	·4904
43	·1178	89	·2438	134	·3671	180	·4932
44	·1205	90	·2466	135	·3699	181	·4959
45	·1233	91	·2493	136	·3726	182	·4986
46	·1260	91¼	·25	137	·3753	182½	·5

OF A YEAR OF 365 DAYS

Days.	Decimal of a Year.	Days.	Decimal of a Year.	Days.	Decimal of a Year.	Days.	Decimal of a Year.
183	·5014	229	·6274	274	·7507	320	·8767
184	·5041	230	·6301	275	·7534	321	·8795
185	·5068	231	·6329	276	·7562	322	·8822
186	·5096	232	·6356	277	·7589	323	·8849
187	·5123	233	·6384	278	·7616	324	·8877
188	·5151	234	·6411	279	·7644	325	·8904
189	·5178	235	·6438	280	·7671	326	·8932
190	·5205	236	·6466	281	·7699	327	·8959
191	·5233	237	·6493	282	·7726	328	·8986
192	·5260	238	·6521	283	·7753	329	·9014
193	·5288	239	·6548	284	·7781	330	·9041
194	·5315	240	·6575	285	·7808	331	·9068
195	·5342	241	·6603	286	·7836	332	·9096
196	·5370	242	·6630	287	·7863	333	·9123
197	·5397	243	·6658	288	·7890	334	·9151
198	·5425	244	·6685	289	·7918	335	·9178
199	·5452	245	·6712	290	·7945	336	·9205
200	·5479	246	·6740	291	·7973	337	·9233
201	·5507	247	·6767	292	·8000	338	·9260
202	·5534	248	·6795	293	·8027	339	·9288
203	·5562	249	·6822	294	·8055	340	·9315
204	·5589	250	·6849	295	·8082	341	·9342
205	·5616	251	·6877	296	·8110	342	·9370
206	·5644	252	·6904	297	·8137	343	·9397
207	·5671	253	·6932	298	·8164	344	·9425
208	·5699	254	·6959	299	·8192	345	·9452
209	·5726	255	·6986	300	·8219	346	·9479
210	·5753	256	·7014	301	·8247	347	·9507
211	·5781	257	·7041	302	·8274	348	·9534
212	·5808	258	·7068	303	·8301	349	·9562
213	·5836	259	·7096	304	·8329	350	·9589
214	·5863	260	·7123	305	·8356	351	·9616
215	·5890	261	·7151	306	·8384	352	·9644
216	·5918	262	·7178	307	·8411	353	·9671
217	·5945	263	·7205	308	·8438	354	·9699
218	·5973	264	·7233	309	·8466	355	·9726
219	·6000	265	·7260	310	·8493	356	·9753
220	·6027	266	·7288	311	·8521	357	·9781
221	·6055	267	·7315	312	·8548	358	·9808
222	·6082	268	·7342	313	·8575	359	·9836
223	·6110	269	·7370	314	·8603	360	·9863
224	·6137	270	·7397	315	·8630	361	·9890
225	·6164	271	·7425	316	·8658	362	·9918
226	·6192	272	·7452	317	·8685	363	·9945
227	·6219	273	·7479	318	·8712	364	·9973
228	·6247	273¾	·75	319	·8740	365	1·0000

Logarithms

N	0	1	2	3	4	5	6	7	8	9	Proportionate Parts.								
100	0000	0004	0009	0013	0017	0022	0026	0030	0035	0039									
101	0043	0048	0052	0056	0060	0065	0069	0073	0077	0082									
102	0086	0090	0095	0099	0103	0107	0111	0116	0120	0124									
103	0128	0133	0137	0141	0145	0149	0154	0158	0162	0166									
104	0170	0175	0179	0183	0187	0191	0195	0199	0204	0208									
105	0212	0216	0220	0224	0228	0233	0237	0241	0245	0249									
106	0253	0257	0261	0265	0269	0273	0278	0282	0286	0290									
107	0294	0298	0302	0306	0310	0314	0318	0322	0326	0330									
108	0334	0338	0342	0346	0350	0354	0358	0362	0366	0370									
109	0374	0378	0382	0386	0390	0394	0398	0402	0406	0410	1	2	3	4	5	6	7	8	9
10	0000	0043	0086	0128	0170	0212	0253	0294	0334	0374	4	8	12	17	21	25	29	33	37
11	0414	0453	0492	0531	0569	0607	0645	0682	0719	0755	4	8	11	15	19	23	26	30	34
12	0792	0828	0864	0899	0934	0969	1004	1038	1072	1106	3	7	10	14	17	21	24	28	31
13	1139	1173	1206	1239	1271	1303	1335	1367	1399	1430	3	6	10	13	16	19	23	26	29
14	1461	1492	1523	1553	1584	1614	1644	1673	1703	1732	3	6	9	12	15	18	21	24	27
15	1761	1790	1818	1847	1875	1903	1931	1959	1987	2014	3	6	8	11	14	17	20	22	25
16	2041	2068	2095	2122	2148	2175	2201	2227	2253	2279	3	5	8	11	13	16	18	21	24
17	2304	2330	2355	2380	2405	2430	2455	2480	2504	2529	2	5	7	10	12	15	17	20	22
18	2553	2577	2601	2625	2648	2672	2695	2718	2742	2765	2	5	7	9	12	14	16	19	21
19	2788	2810	2833	2856	2878	2900	2923	2945	2967	2989	2	4	7	9	11	13	16	18	20
20	3010	3032	3054	3075	3096	3118	3139	3160	3181	3201	2	4	6	8	11	13	15	17	19
21	3222	3243	3263	3284	3304	3324	3345	3365	3385	3404	2	4	6	8	10	12	14	16	18
22	3424	3444	3464	3483	3502	3522	3541	3560	3579	3598	2	4	6	8	10	12	14	15	17
23	3617	3636	3655	3674	3692	3711	3729	3747	3766	3784	2	4	6	7	9	11	13	15	17
24	3802	3820	3838	3856	3874	3892	3909	3927	3945	3962	2	4	5	7	9	11	12	14	16
25	3979	3997	4014	4031	4048	4065	4082	4099	4116	4133	2	3	5	7	9	10	12	14	15
26	4150	4166	4183	4200	4216	4232	4249	4265	4281	4298	2	3	5	7	8	10	11	13	15
27	4314	4330	4346	4362	4378	4393	4409	4425	4440	4456	2	3	5	6	8	9	11	13	14
28	4472	4487	4502	4518	4533	4548	4564	4579	4594	4609	2	3	5	6	8	9	11	12	14
29	4624	4639	4654	4669	4683	4698	4713	4728	4742	4757	1	3	4	6	7	9	10	12	13
30	4771	4786	4800	4814	4829	4843	4857	4871	4886	4900	1	3	4	6	7	9	10	11	13
31	4914	4928	4942	4955	4969	4983	4997	5011	5024	5038	1	3	4	6	7	8	10	11	12
32	5051	5065	5079	5092	5105	5119	5132	5145	5159	5172	1	3	4	5	7	8	9	11	12
33	5185	5198	5211	5224	5237	5250	5263	5276	5289	5302	1	3	4	5	6	8	9	10	12
34	5315	5328	5340	5353	5366	5378	5391	5403	5416	5428	1	3	4	5	6	8	9	10	11
35	5441	5453	5465	5478	5490	5502	5514	5527	5539	5551	1	2	4	5	6	7	9	10	11
36	5563	5575	5587	5599	5611	5623	5635	5647	5658	5670	1	2	4	5	6	7	8	10	11
37	5682	5694	5705	5717	5729	5740	5752	5763	5775	5786	1	2	3	5	6	7	8	9	10
38	5798	5809	5821	5832	5843	5855	5866	5877	5888	5899	1	2	3	5	6	7	8	9	10
39	5911	5922	5933	5944	5955	5966	5977	5988	5999	6010	1	2	3	4	5	7	8	9	10
40	6021	6031	6042	6053	6064	6075	6085	6096	6107	6117	1	2	3	4	5	6	8	9	10
41	6128	6138	6149	6160	6170	6180	6191	6201	6212	6222	1	2	3	4	5	6	7	8	9
42	6232	6243	6253	6263	6274	6284	6294	6304	6314	6325	1	2	3	4	5	6	7	8	9
43	6335	6345	6355	6365	6375	6385	6395	6405	6415	6425	1	2	3	4	5	6	7	8	9
44	6435	6444	6454	6464	6474	6484	6493	6503	6513	6522	1	2	3	4	5	6	7	8	9
45	6532	6542	6551	6561	6571	6580	6590	6599	6609	6618	1	2	3	4	5	6	7	8	9
46	6628	6637	6646	6656	6665	6675	6684	6693	6702	6712	1	2	3	4	5	6	7	7	8
47	6721	6730	6739	6749	6758	6767	6776	6785	6794	6803	1	2	3	4	5	5	6	7	8
48	6812	6821	6830	6839	6848	6857	6866	6875	6884	6893	1	2	3	4	4	5	6	7	8
49	6902	6911	6920	6928	6937	6946	6955	6964	6972	6981	1	2	3	4	4	5	6	7	8

LOGARITHMS

N	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
50	6990	6998	7007	7016	7024	7033	7042	7050	7059	7067	1	2	3	3	4	5	6	7	8
51	7076	7084	7093	7101	7110	7118	7126	7135	7143	7152	1	2	3	3	4	5	6	7	8
52	7160	7168	7177	7185	7193	7202	7210	7218	7226	7235	1	2	2	3	4	5	6	7	7
53	7243	7251	7259	7267	7275	7284	7292	7300	7308	7316	1	2	2	3	4	5	6	6	7
54	7324	7332	7340	7348	7356	7364	7372	7380	7388	7396	1	2	2	3	4	5	6	6	7
55	7404	7412	7419	7427	7435	7443	7451	7459	7466	7474	1	2	2	3	4	5	5	6	7
56	7482	7490	7497	7505	7513	7520	7528	7536	7543	7551	1	2	2	3	4	5	5	6	7
57	7559	7566	7574	7582	7589	7597	7604	7612	7619	7627	1	2	2	3	4	5	5	6	7
58	7634	7642	7649	7657	7664	7672	7679	7686	7694	7701	1	1	2	3	4	4	5	6	7
59	7709	7716	7723	7731	7738	7745	7752	7760	7767	7774	1	1	2	3	4	4	5	6	7
60	7782	7789	7796	7803	7810	7818	7825	7832	7839	7846	1	1	2	3	4	4	5	6	6
61	7853	7860	7868	7875	7882	7889	7896	7903	7910	7917	1	1	2	3	4	4	5	6	6
62	7924	7931	7938	7945	7952	7959	7966	7973	7980	7987	1	1	2	3	3	4	5	6	6
63	7993	8000	8007	8014	8021	8028	8035	8041	8048	8055	1	1	2	3	3	4	5	5	6
64	8062	8069	8075	8082	8089	8096	8102	8109	8116	8122	1	1	2	3	3	4	5	5	6
65	8129	8136	8142	8149	8156	8162	8169	8176	8182	8189	1	1	2	3	3	4	5	5	6
66	8195	8202	8209	8215	8222	8228	8235	8241	8248	8254	1	1	2	3	3	4	5	5	6
67	8261	8267	8274	8280	8287	8293	8299	8306	8312	8319	1	1	2	3	3	4	5	5	6
68	8325	8331	8338	8344	8351	8357	8363	8370	8376	8382	1	1	2	3	3	4	4	5	6
69	8388	8395	8401	8407	8414	8420	8426	8432	8439	8445	1	1	2	2	3	4	4	5	6
70	8451	8457	8463	8470	8476	8482	8488	8494	8500	8506	1	1	2	2	3	4	4	5	6
71	8513	8519	8525	8531	8537	8543	8549	8555	8561	8567	1	1	2	2	3	4	4	5	5
72	8573	8579	8585	8591	8597	8603	8609	8615	8621	8627	1	1	2	2	3	4	4	5	5
73	8633	8639	8645	8651	8657	8663	8669	8675	8681	8686	1	1	2	2	3	4	4	5	5
74	8692	8698	8704	8710	8716	8722	8727	8733	8739	8745	1	1	2	2	3	4	4	5	5
75	8751	8756	8762	8768	8774	8779	8785	8791	8797	8802	1	1	2	2	3	3	4	5	5
76	8808	8814	8820	8825	8831	8837	8842	8848	8854	8859	1	1	2	2	3	3	4	5	5
77	8865	8871	8876	8882	8887	8893	8899	8904	8910	8915	1	1	2	2	3	3	4	4	5
78	8921	8927	8932	8938	8943	8949	8954	8960	8965	8971	1	1	2	2	3	3	4	4	5
79	8976	8982	8987	8993	8998	9004	9009	9015	9020	9025	1	1	2	2	3	3	4	4	5
80	9031	9036	9042	9047	9053	9058	9063	9069	9074	9079	1	1	2	2	3	3	4	4	5
81	9085	9090	9096	9101	9106	9112	9117	9122	9128	9133	1	1	2	2	3	3	4	4	5
82	9138	9143	9149	9154	9159	9165	9170	9175	9180	9186	1	1	2	2	3	3	4	4	5
83	9191	9196	9201	9206	9212	9217	9222	9227	9232	9238	1	1	2	2	3	3	4	4	5
84	9243	9248	9253	9258	9263	9269	9274	9279	9284	9289	1	1	2	2	3	3	4	4	5
85	9294	9299	9304	9309	9315	9320	9325	9330	9335	9340	1	1	2	2	3	3	4	4	5
86	9345	9350	9355	9360	9365	9370	9375	9380	9385	9390	1	1	2	2	3	3	4	4	5
87	9395	9400	9405	9410	9415	9420	9425	9430	9435	9440	0	1	1	2	2	3	3	4	4
88	9445	9450	9455	9460	9465	9469	9474	9479	9484	9489	0	1	1	2	2	3	3	4	4
89	9494	9499	9504	9509	9513	9518	9523	9528	9533	9538	0	1	1	2	2	3	3	4	4
90	9542	9547	9552	9557	9562	9566	9571	9576	9581	9586	0	1	1	2	2	3	3	4	4
91	9590	9595	9600	9605	9609	9614	9619	9624	9628	9633	0	1	1	2	2	3	3	4	4
92	9638	9643	9647	9652	9657	9661	9666	9671	9675	9680	0	1	1	2	2	3	3	4	4
93	9685	9689	9694	9699	9703	9708	9713	9717	9722	9727	0	1	1	2	2	3	3	4	4
94	9731	9736	9741	9745	9750	9754	9759	9763	9768	9773	0	1	1	2	2	3	3	4	4
95	9777	9782	9786	9791	9795	9800	9805	9809	9814	9818	0	1	1	2	2	3	3	4	4
96	9823	9827	9832	9836	9841	9845	9850	9854	9859	9863	0	1	1	2	2	3	3	4	4
97	9868	9872	9877	9881	9886	9890	9894	9899	9903	9908	0	1	1	2	2	3	3	4	4
98	9912	9917	9921	9926	9930	9934	9939	9943	9948	9952	0	1	1	2	2	3	3	4	4
99	9956	9961	9965	9969	9974	9978	9983	9987	9991	9996	0	1	1	2	2	3	3	3	4

Anti-Logarithms

	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
·00	1000	1002	1005	1007	1009	1012	1014	1016	1019	1021	0	0	1	1	1	1	2	2	2
·01	1023	1026	1028	1030	1033	1035	1038	1040	1042	1045	0	0	1	1	1	1	2	2	2
·02	1047	1050	1052	1054	1057	1059	1062	1064	1067	1069	0	0	1	1	1	1	2	2	2
·03	1072	1074	1076	1079	1081	1084	1086	1089	1091	1094	0	0	1	1	1	1	2	2	2
·04	1096	1099	1102	1104	1107	1109	1112	1114	1117	1119	0	1	1	1	1	2	2	2	2
·05	1122	1125	1127	1130	1132	1135	1138	1140	1143	1146	0	1	1	1	1	2	2	2	2
·06	1148	1151	1153	1156	1159	1161	1164	1167	1169	1172	0	1	1	1	1	2	2	2	2
·07	1175	1178	1180	1183	1186	1189	1191	1194	1197	1199	0	1	1	1	1	2	2	2	2
·08	1202	1205	1208	1211	1213	1216	1219	1222	1225	1227	0	1	1	1	1	2	2	2	3
·09	1230	1233	1236	1239	1242	1245	1247	1250	1253	1256	0	1	1	1	1	2	2	2	3
·10	1259	1262	1265	1268	1271	1274	1276	1279	1282	1285	0	1	1	1	1	2	2	2	3
·11	1288	1291	1294	1297	1300	1303	1306	1309	1312	1315	0	1	1	1	2	2	2	2	3
·12	1318	1321	1324	1327	1330	1334	1337	1340	1343	1346	0	1	1	1	2	2	2	2	3
·13	1349	1352	1355	1358	1361	1365	1368	1371	1374	1377	0	1	1	1	2	2	2	3	3
·14	1380	1384	1387	1390	1393	1396	1400	1403	1406	1409	0	1	1	1	2	2	2	3	3
·15	1413	1416	1419	1422	1426	1429	1432	1435	1439	1442	0	1	1	1	2	2	2	3	3
·16	1445	1449	1452	1455	1459	1462	1466	1469	1472	1476	0	1	1	1	2	2	2	3	3
·17	1479	1483	1486	1489	1493	1496	1500	1503	1507	1510	0	1	1	1	2	2	2	3	3
·18	1514	1517	1521	1524	1528	1531	1535	1538	1542	1545	0	1	1	1	2	2	2	3	3
·19	1549	1552	1556	1560	1563	1567	1570	1574	1578	1581	0	1	1	1	2	2	3	3	3
·20	1585	1589	1592	1596	1600	1603	1607	1611	1614	1618	0	1	1	1	2	2	3	3	3
·21	1622	1626	1629	1633	1637	1641	1644	1648	1652	1656	0	1	1	2	2	2	3	3	3
·22	1660	1663	1667	1671	1675	1679	1683	1687	1690	1694	0	1	1	2	2	2	3	3	3
·23	1698	1702	1706	1710	1714	1718	1722	1726	1730	1734	0	1	1	2	2	2	3	3	4
·24	1738	1742	1746	1750	1754	1758	1762	1766	1770	1774	0	1	1	2	2	2	3	3	4
·25	1778	1782	1786	1791	1795	1799	1803	1807	1811	1816	0	1	1	2	2	2	3	3	4
·26	1820	1824	1828	1832	1837	1841	1845	1849	1854	1858	0	1	1	2	2	3	3	3	4
·27	1862	1866	1871	1875	1879	1884	1888	1892	1897	1901	0	1	1	2	2	3	3	3	4
·28	1905	1910	1914	1919	1923	1928	1932	1936	1941	1945	0	1	1	2	2	3	3	4	4
·29	1950	1954	1959	1963	1968	1972	1977	1982	1986	1991	0	1	1	2	2	3	3	4	4
·30	1995	2000	2004	2009	2014	2018	2023	2028	2032	2037	0	1	1	2	2	3	3	4	4
·31	2042	2046	2051	2056	2061	2065	2070	2075	2080	2084	0	1	1	2	2	3	3	4	4
·32	2089	2094	2099	2104	2109	2113	2118	2123	2128	2133	0	1	1	2	2	3	3	4	4
·33	2138	2143	2148	2153	2158	2163	2168	2173	2178	2183	0	1	1	2	2	3	3	4	4
·34	2188	2193	2198	2203	2208	2213	2218	2223	2228	2234	1	1	2	2	3	3	4	4	5
·35	2239	2244	2249	2254	2259	2265	2270	2275	2280	2286	1	1	2	2	3	3	4	4	5
·36	2291	2296	2301	2307	2312	2317	2323	2328	2333	2339	1	1	2	2	3	3	4	4	5
·37	2344	2350	2355	2360	2366	2371	2377	2382	2388	2393	1	1	2	2	3	3	4	4	5
·38	2399	2404	2410	2415	2421	2427	2432	2438	2443	2449	1	1	2	2	3	3	4	4	5
·39	2455	2460	2466	2472	2477	2483	2489	2495	2500	2506	1	1	2	2	3	3	4	5	5
·40	2512	2518	2523	2529	2535	2541	2547	2553	2559	2564	1	1	2	2	3	4	4	5	5
·41	2570	2576	2582	2588	2594	2600	2606	2612	2618	2624	1	1	2	2	3	4	4	5	5
·42	2630	2636	2642	2649	2655	2661	2667	2673	2679	2685	1	1	2	2	3	4	4	5	6
·43	2692	2698	2704	2710	2716	2723	2729	2735	2742	2748	1	1	2	3	3	4	4	5	6
·44	2754	2761	2767	2773	2780	2786	2793	2799	2805	2812	1	1	2	3	3	4	4	5	6
·45	2818	2825	2831	2838	2844	2851	2858	2864	2871	2877	1	1	2	3	3	4	5	5	6
·46	2884	2891	2897	2904	2911	2917	2924	2931	2938	2944	1	1	2	3	3	4	5	5	6
·47	2951	2958	2965	2972	2979	2985	2992	2999	3006	3013	1	1	2	3	3	4	5	5	6
·48	3020	3027	3034	3041	3048	3055	3062	3069	3076	3083	1	1	2	3	4	4	5	6	6
·49	3090	3097	3105	3112	3119	3126	3133	3141	3148	3155	1	1	2	3	4	4	5	6	6

ANTI-LOGARITHMS

	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
·50	3162	3170	3177	3184	3192	3199	3206	3214	3221	3228	1	1	2	3	4	4	5	6	7
·51	3236	3243	3251	3258	3266	3273	3281	3289	3296	3304	1	2	2	3	4	5	5	6	7
·52	3311	3319	3327	3334	3342	3350	3357	3365	3373	3381	1	2	2	3	4	5	5	6	7
·53	3388	3396	3404	3412	3420	3428	3436	3443	3451	3459	1	2	2	3	4	5	6	6	7
·54	3467	3475	3483	3491	3499	3508	3516	3524	3532	3540	1	2	2	3	4	5	6	6	7
·55	3548	3556	3565	3573	3581	3589	3597	3606	3614	3622	1	2	2	3	4	5	6	7	7
·56	3631	3639	3648	3656	3664	3673	3681	3690	3698	3707	1	2	3	3	4	5	6	7	8
·57	3715	3724	3733	3741	3750	3758	3767	3776	3784	3793	1	2	3	3	4	5	6	7	8
·58	3802	3811	3819	3828	3837	3846	3855	3864	3873	3882	1	2	3	4	4	5	6	7	8
·59	3890	3899	3908	3917	3926	3936	3945	3954	3963	3972	1	2	3	4	5	5	6	7	8
·60	3981	3990	3999	4009	4018	4027	4036	4046	4055	4064	1	2	3	4	5	6	6	7	8
·61	4074	4083	4093	4102	4111	4121	4130	4140	4150	4159	1	2	3	4	5	6	7	8	9
·62	4169	4178	4188	4198	4207	4217	4227	4236	4246	4256	1	2	3	4	5	6	7	8	9
·63	4266	4276	4285	4295	4305	4315	4325	4335	4345	4355	1	2	3	4	5	6	7	8	9
·64	4365	4375	4385	4395	4406	4416	4426	4436	4446	4457	1	2	3	4	5	6	7	8	9
·65	4467	4477	4487	4498	4508	4519	4529	4539	4550	4560	1	2	3	4	5	6	7	8	9
·66	4571	4581	4592	4603	4613	4624	4634	4645	4656	4667	1	2	3	4	5	6	7	9	10
·67	4677	4688	4699	4710	4721	4732	4742	4753	4764	4775	1	2	3	4	5	7	8	9	10
·68	4786	4797	4808	4819	4831	4842	4853	4864	4875	4887	1	2	3	4	6	7	8	9	10
·69	4898	4909	4920	4932	4943	4955	4966	4977	4989	5000	1	2	3	5	6	7	8	9	10
·70	5012	5023	5035	5047	5058	5070	5082	5093	5105	5117	1	2	4	5	6	7	8	9	11
·71	5129	5140	5152	5164	5176	5188	5200	5212	5224	5236	1	2	4	5	6	7	8	10	11
·72	5248	5260	5272	5284	5297	5309	5321	5333	5346	5358	1	2	4	5	6	7	9	10	11
·73	5370	5383	5395	5408	5420	5433	5445	5458	5470	5483	1	3	4	5	6	8	9	10	11
·74	5495	5508	5521	5534	5546	5559	5572	5585	5598	5610	1	3	4	5	6	8	9	10	12
·75	5623	5636	5649	5662	5675	5689	5702	5715	5728	5741	1	3	4	5	7	8	9	10	12
·76	5754	5768	5781	5794	5808	5821	5834	5848	5861	5875	1	3	4	5	7	8	9	11	12
·77	5888	5902	5916	5929	5943	5957	5970	5984	5998	6012	1	3	4	5	7	8	10	11	12
·78	6026	6039	6053	6067	6081	6095	6109	6124	6138	6152	1	3	4	6	7	8	10	11	13
·79	6166	6180	6194	6209	6223	6237	6252	6266	6281	6295	1	3	4	6	7	9	10	11	13
·80	6310	6324	6339	6353	6368	6383	6397	6412	6427	6442	1	3	4	6	7	9	10	12	13
·81	6457	6471	6486	6501	6516	6531	6546	6561	6577	6592	2	3	5	6	8	9	11	12	14
·82	6607	6622	6637	6653	6668	6683	6699	6714	6730	6745	2	3	5	6	8	9	11	12	14
·83	6761	6776	6792	6808	6823	6839	6855	6871	6887	6902	2	3	5	6	8	9	11	13	14
·84	6918	6934	6950	6966	6982	6998	7015	7031	7047	7063	2	3	5	6	8	10	11	13	15
·85	7079	7096	7112	7129	7145	7161	7178	7194	7211	7228	2	3	5	7	8	10	12	13	15
·86	7244	7261	7278	7295	7311	7328	7345	7362	7379	7396	2	3	5	7	8	10	12	13	15
·87	7413	7430	7447	7464	7482	7499	7516	7534	7551	7568	2	3	5	7	9	10	12	14	16
·88	7586	7603	7621	7638	7656	7674	7691	7709	7727	7745	2	4	5	7	9	11	12	14	16
·89	7762	7780	7798	7816	7834	7852	7870	7889	7907	7925	2	4	5	7	9	11	13	14	16
·90	7943	7962	7980	7998	8017	8035	8054	8072	8091	8110	2	4	6	7	9	11	13	15	17
·91	8128	8147	8166	8185	8204	8222	8241	8260	8279	8299	2	4	6	8	9	11	13	15	17
·92	8318	8337	8356	8375	8395	8414	8433	8453	8472	8492	2	4	6	8	10	12	14	15	17
·93	8511	8531	8551	8570	8590	8610	8630	8650	8670	8690	2	4	6	8	10	12	14	16	18
·94	8710	8730	8750	8770	8790	8810	8831	8851	8872	8892	2	4	6	8	10	12	14	16	18
·95	8913	8933	8954	8974	8995	9016	9036	9057	9078	9099	2	4	6	8	10	12	15	17	19
·96	9120	9141	9162	9183	9204	9226	9247	9268	9290	9311	2	4	6	8	11	13	15	17	19
·97	9333	9354	9376	9397	9419	9441	9462	9484	9506	9528	2	4	7	9	11	13	15	17	20
·98	9550	9572	9594	9616	9638	9661	9683	9705	9727	9750	2	4	7	9	11	13	16	18	20
·99	9772	9795	9817	9840	9863	9886	9908	9931	9954	9977	2	5	7	9	11	14	16	18	20

ANSWERS TO EXERCISES

NOTE.—*In most cases the whole of the solution is not given, but only sufficient of the answer to enable the student to locate any error he may have made in working out an exercise.*

Page 39, Exercise 1:—

Profit and Loss.

Dec. 31.	To Wages	£350	0	0	Dec. 31. By Goods	£2075	0	0
	,, Rent	200	0	0	,, Discount	62	0	0
	,, Capital	1587	0	0				
		£2137	0	0		£2137	0	0

BALANCE SHEET as at 31st December.

Liabilities.				*Assets.*			
Rusk & Co.	£700	0	0	John Harvey	£300	0	0
George Tait & Son	900	0	0	Bills receivable	2000	0	0
Bills payable	1000	0	0	Goods	3000	0	0
Capital	2747	0	0	Bank	37	0	0
				Cash	10	0	0
	£5347	0	0		£5347	0	0

Page 40, Exercise 2:—

Profit and Loss.

Dec. 31.	To Wages	£600	0	0	Dec. 31. By Goods	£1360	0	0
	,, Rent	200	0	0				
	,, Discount	40	0	0				
	,, Capital	520	0	0				
		£1360	0	0		£1360	0	0

BALANCE SHEET as at 31st December.

Liabilities.		*Assets.*	
A. Ross and Co.	£200 0 0	John Adamson	£900 0 0
Capital	1770 0 0	Goods	1000 0 0
		Bank	45 0 0
		Cash	25 0 0
	£1970 0 0		£1970 0 0

Page 41, Exercise 3 :—

Profit and Loss.

Dec. 31.	To Wages	£400	0 0	Dec. 31.	By Goods	£1560	0 0
	,, Rent	150	0 0				
	,, Discount	35	0 0				
	,, Capital	975	0 0				
		£1560	0 0			£1560	0 0

BALANCE SHEET as at 31st December.

Liabilities.		*Assets.*	
James Watt and Co.	£2100 0 0	John Reid	£900 0 0
Capital	2975 0 0	Office fittings and furniture	200 0 0
		Goods	2000 0 0
		Bank	1515 0 0
		Cash	460 0 0
	£5075 0 0		£5075 0 0

Page 93, Exercise 1 :—

THE HERITABLE LAND SOCIETY

STATEMENT OF AFFAIRS

Liabilities.	Expected to rank.	*Assets.*	Estimated to realise.
I. ORDINARY CREDITORS .	£200,000 0 0	I. CASH ON HAND . .	£100 0 0
II. CREDITORS SECURED ON PROPERTY . £6000		II. CASH AT BANKERS .	900 0 0
Deducted from Assets, Branch VI.		III. BOOK DEBTS :—	
		Good . . £1000	
		Doubtful, £25,000, produce . . 2000	
		Bad, £1000 . 0	
			3,000 0 0
II. PREFERABLE CLAIMS . . £300		IV. BILL OF EXCHANGE .	22 0 0
Deducted from Assets.		V. LOANS ON MORTGAGE, £170,000, produce .	60,000 0 0
		VI. PROPERTY :—	
		1. Held by secured creditors, value . £12,000	
		Deduct— Secured debt, per Liabilities, Branch II. . 6,000	
		£6,000	
		2. Other property . 56,000	
			62,000 0 0
		VII. OFFICE FURNITURE .	100 0 0
			£126,122 0 0
		Deduct—Preferable Claims . . .	300 0 0
		Assets available for division among ordinary creditors, showing a dividend of 12s. 7d. per £, exclusive of expenses . . .	£125,822 0 0
		Deficiency . . .	74,178 0 0
	£200,000 0 0		£200,000 0 0

Page 93, Exercise 2 :—

WALLACE & GIBB

Statement of Affairs

Liabilities.			*Assets.*		
I. Ordinary creditors .		£6,000 0 0	I. Cash on hand . .		£50
II. Creditors fully secured . .	£4000		II. Customers' accounts :—		
Deducted from Assets, Branch V.			Good . .	£1000	
III. Creditors partly secured . .	£6300		Doubtful, £100, estimated to produce . .	60	
Deduct — Value of securities assigned per Assets, Branch V.	800		Bad, £200 .	0	
		5,500 0 0			1,060
IV. Preferential claims . .	£150		III. Bills receivable . .		800
Deducted from Assets.			IV. Property, cost £3000, estimated to produce . . .		2,000
			V. Securities :—		
			1. Held by creditors partly secured .	£800	
			Deducted from Liabilities, Branch III.		
			2. Value of securities pledged to fully secured creditors .	£6200	
			Deduct— Claims by fully secured creditors, per Liabilities, Branch II. .	4000	
					2,200
					£6,110
			Deduct—Preferential claims .		150
			Assets available for division among ordinary creditors, showing a dividend of 10s. 4d. per £, exclusive of expenses .		£5,960
			Deficiency . . .		5,540
		£11,500 0 0			£11,500

WALLACE & GIBB

Deficiency Account

To Loss from shrinkage of Assets, as shown in Statement of Affairs :—				By Capital put into business :—			
Book debts . . .	£240	0	0	Wallace	£2,500	0	0
Property . . .	1,000	0	0	Gibb	3,900	0	0
	£1,240	0	0		£6,400	0	0
,, Stock Exchange losses . .	3,000	0	0	,, Balance, being deficiency shown in Statement of Affairs	5,540	0	0
,, Trade expenses . . .	2,300	0	0				
,, Business losses . . .	1,900	0	0				
,, Partners' drawings :—							
Wallace . £2000 0 0							
Gibb . 1500 0 0							
	3,500	0	0				
	£11,940	0	0		£11,940	0	0

Page 94, Exercise 3 :—

William Arnot.

Statement of Affairs as at 1st July.

Liabilities.				*Assets.*			
I. Ordinary creditors :—				I. Cash in hand and in bank	£84	0	0
On open account .	£9,000	0	0	II. Office furniture, cost £300, estimated to realise	200	0	0
On bills payable .	20,000	0	0	III. Four stations, buildings, plant, steamers and carrying craft, cost £40,000, estimated to realise . . .	20,000	0	0
	£29,000	0	0				
II. Fully secured creditors . .	£2300			IV. Book debts :—			
Deducted from Assets, Branch VIII.				Good . . £1000			
II. Partly secured creditors . . .	£35,000			Doubtful, £200, estimated to realise . . 75			
Deduct—Shares assigned in security, per Assets, Branch VII. . .	20,000			Bad, £300 . 0			
	15,000	0	0		1,075	0	0
IV. Preferable claims	£800			V. Stock in Liverpool, cost £1500, estimated to realise	1,200	0	0
Deducted from Assets.							
Carry forward	£44,000	0	0	Carry forward .	£22.559	0	0

STATEMENT OF AFFAIRS—*continued.*

Liabilities.		*Assets.*		
Brought forward .	£44,000 0 0	Brought forward .		£22,559
		VI. STOCK AND BOOK DEBTS, LESS SUNDRY LIABILITIES AT THE FOUR STATIONS ON COAST .	£36,000	
		Deduct—Estimated loss on realisation :—		
		Stock . £6000		
		Book debts 9000		
			15,000	
				21,000
		VII. SHARES HELD .	£20,000	
		These shares are assigned in security of debts amounting to £35,000, and their value is deducted from Liabilities, Branch III.		
		VIII. HERITABLE PROPERTY :—		
		Value . .	£3000	
		Deduct—Creditors' claims per Liabilities, Branch II. . . .	2300	
				700
				£44,259
		Deduct—Preferable claims per Liabilities, Branch IV.		800
		Assets available for division among ordinary creditors, showing a dividend of 19s. 9d. per £, exclusive of expenses		£43,459
		Deficiency . . .		541
	£44,000 0 0			£44,000

WILLIAM ARNOT.

Deficiency Account.

o Loss from shrinkage of Assets, as shown in State of Affairs :—				By Capital in business six years ago		£42,000 0 0
Office furniture	£100 0 0			,, Interest on capital for six years at £2000 a year		12,000 0 0
Buildings, plant, etc. at stations	20,000 0 0			,, Profit shown in accounts :—		
Book debts	425 0 0			1st year	£3,000	
Stock in Liverpool	300 0 0			2nd year	4,000	
Stock and book debts at stations	15,000 0 0			3rd year	5,284	
	£35,825 0 0				£12.284	
Drawings at the rate of £4000 a year for six years	24,000 0 0			*Deduct* Losses :—		
				4th year . £1500		
				5th year . 2500		
				6th year . 3000		
					7,000	
						5,284 0 0
				,, Balance, being deficiency shown in Statement of Affairs		541 0 0
	£59,825 0 0					£59,825 0 0

Page 99, Exercise 1 :—

Profit and Loss Account.

Wages	£20 0 0			By Silk		£545 0 0
Rent and taxes	150 0 0			,, Cloth		400 0 0
Depreciation	10 0 0			,, Velvet		608 0 0
Capital	1373 0 0					
	£1553 0 0					£1553 0 0

BALANCE SHEET as at 31st December.

Liabilities.			*Assets.*			
bster and Co.	£2200 0 0		T. Henry		£600 0 0	
ls payable	2000 0 0		Bills receivable		4000 0 0	
ital	2178 0 0		Furniture and fittings		90 0 0	
			Stock :—			
			Silk	£400 0 0		
			Cloth	300 0 0		
			Velvet	708 0 0		
					1408 0 0	
			Bank		50 0 0	
			Cash		230 0 0	
	£6378 0 0				£6378 0 0	

Page 101, Exercise 2 :—

Profit and Loss Account.

To Department No. 1 . . .			£2700	0	0	By Department No. 2 . .	£3650	0
,, Net profit, allocated thus :—						,, do. No. 3 . .	4000	0
Tod, two-thirds .	£3300							
Dick, one-third . .	1650							
			4950	0	0			
			£7650	0	0		£7650	0

BALANCE SHEET as at 31st December.

Liabilities.				*Assets.*		
Creditors :—				Customers :—		
On open account . .		£18,000	0 0	On open account . .	£29,000	0
On bills payable . .		10,000	0 0	On bills receivable . .	3,000	0
Cash creditors . . .		28,000	0 0		£32,000	0
		£56,000	0 0	Stock	38,000	0
Capital :—				Sundry debtors on loans . .	1,000	0
Tod . £17,300	0 0			Fixtures, fittings, and trade utensils	950	0
Dick . . 7,250	0 0			Business premises . . .	6,500	0
		24,550	0 0	Bank	2,000	0
				Cash on hand	100	0
		£80,550	0 0		£80,550	0

Page 103, Exercise 3 :—

Profit and Loss Account.

To Mace . . .		£20	0	0	By Cinnamon . .	£180	0 0
,, Office expenses .		100	0	0	,, Nutmegs . .	270	0 0
,, Capital . . .		333	0	0	,, Discount . .	3	0 0
		£453	0	0		£453	0 0

BALANCE SHEET as at 31st December.

Liabilities.		*Assets.*	
W. Perkins	£150 0 0	Bills receivable	£1125 0 0
Bills payable	500 0 0	Stock :—	
Capital	4108 0 0	Cinnamon £480 0 0	
		Nutmegs 470 0 0	
			950 0 0
		Cash	2683 0 0
	£4758 0 0		£4758 0 0

Page 104, Exercise 4 :—

R. HAY & SONS, WINE MERCHANTS

Profit and Loss Account.

To Carriage	£50 0 0	By Gross profit :—	
,, Wages and salaries	300 0 0	Whisky	£520 0 0
,, Stationery and stamps	10 0 0	Brandy	800 0 0
,, Rent	50 0 0	Gin and Wines	700 0 0
,, Rates and taxes	18 0 0		£2020 0 0
,, Net profit	1642 0 0	,, Discount	50 0 0
	£2070 0 0		£2070 0 0

Page 132, Exercise 1 :—

Joint Account.

To Brown (goods)	£1000 0 0	By Smith	£1170 0 0
,, Smith (freight and insurance)	65 0 0		
,, Brown (share of profit)	52 10 0		
,, Smith (share of profit)	52 10 0		
	£1170 0 0		£1170 0 0

Brown, Capital Account.

To Balance	£1052 10 0	By Joint Account	£1000 0 0
		,, do. (share of profit)	52 10 0
	£1052 10 0		£1052 10 0

Smith, Capital Account

To Joint Account	£1170	0	0	By Joint Account	£65	0	0
				,, do. (share of profit)	52	10	0
				,, Balance	1052	10	0
	£1170	0	0		£1170	0	0

Smith would pay to Brown £1052 : 10s.

Page 132, Exercise 2 :—

R. Allan, Capital Account.

To Bank	£700	0	0	By Bank	£700	0	0
,, Adventure	200	0	0	,, Adventure (profit)	145	16	8
				,, Balance	54	3	4
	£900	0	0		£900	0	0

T. Dick, Capital Account.

To Bank	£500	0	0	By Bank	£500	0	0
,, Balance	104	3	4	,, Adventure (profit)	104	3	4
	£604	3	4		£604	3	4

Bank Account.

To R. Allan	£700	0	0	By Adventure	£900	0	0
,, T. Dick	500	0	0	,, do.	50	0	0
,, Adventure	1200	0	0	,, do.	200	0	0
				,, R. Allan	700	0	0
				,, T. Dick	500	0	0
				,, Balance	50	0	0
	£2400	0	0		£2400	0	0

Adventure Account.

To Bank (timber)	£900	0	0	To Bank	£1200	0	0
,, do. (charges)	50	0	0	,, R. Allan	200	0	0
,, do. (freight, etc.)	200	0	0				
,, Profit :—							
R. Allan. £145 16 8							
T. Dick . 104 3 4							
	250	0	0				
	£1400	0	0		£1400	0	0

T. Dick would get the balance in bank of £50, and R. Allan would pay him £54 : 3s. 4d.

Page 190, Exercise 1 :—

BALANCE SHEET as at 30th June.

Liabilities.		*Assets.*	
Capital liferented by widow	£5000 0 0	Sum invested for widow's liferent use on bond at 4 per cent	£5000 0 0
Residue	1700 0 0	Balance in hands of executor	1700 0 0
	£6700 0 0		£6700 0 0

Page 192, Exercise 2 :—

BALANCE SHEET as at 31st December, 1900.

Liabilities.		*Assets.*	
Due to beneficiaries :—		Stock and shares	£1000 0 0
John Roberts, Jr.	£627 8 0	Mortgages	1280 0 0
George Roberts	327 8 0	Cash	877 0 0
William Roberts	607 8 0		
Mary Roberts	1141 2 0		
Frank Smith	453 14 0		
	£3157 0 0		£3157 0 0

Page 223, Exercise 1 :—

BALANCE SHEET as at 1st January.

Liabilities.		*Assets.*	
Partners' capital :—		Book debts	£2,800 0 0
X	£8000 0 0	Goods	2,000 0 0
Y	7800 0 0	Heritable property	5,000 0 0
		Cash	6,000 0 0
	£15,800 0 0		£15,800 0 0

Page 223, Exercise 2 :—

X, Capital Account.

Mar. 31. To Cash	£200 0 0	Jan. 1. By Balance	£2000 0 0
June 30. ,, do.	200 0 0	Dec. 31. ,, Interest	85 0 0
Sept. 30. ,, do.	200 0 0	,, Share of profit	686 5 0
Dec. 31. ,, do.	200 0 0		
,, Balance	1971 5 0		
	£2771 5 0		£2771 5 0

Y, Capital Account.

June 30.	To Cash	£300	0	0	Jan. 1.	By Balance	£1000	0	0
Dec. 31.	,, do.	300	0	0	Dec. 31.	,, Interest	42	10	0
	,, Balance	1128	15	0		,, Share of profit	686	5	0
		£1728	15	0			£1728	15	0

Page 223, Exercise 3 :—

Assets			£8000	0	0
Deduct—					
Cash in bank	£600	0	0		
Liabilities	4000	0	0		
			4600	0	0
			£3400	0	0
Amount business sold for			5500	0	0
Profit on realisation			£2100	0	0

of which each partner is entitled to one-half, namely £1050.

A therefore receives	£4050	0	0
B receives	2050	0	0
	£6100	0	0

To pay this sum there is the cash the business was sold for	£5500	0	0
And the cash in bank	600	0	0
	£6100	0	0

Page 223, Exercise 4 :—

Smith's Capital Account.

Dec. 31.	To Balance	£2550	19	7	Jan. 1.	By Cash	£500	0	0
					Mar. 31.	,, do.	400	0	0
					July 15.	,, do.	600	0	0
					Dec. 31.	,, Interest	53	17	10
						,, Profit	697	1	9
						,, Salary	300	0	0
		£2550	19	7			£2550	19	7

Brown's Capital Account.

Dec. 31. To Balance	£2349	0	5	Jan. 1. By Cash	£500	0	0
				Mar. 15. ,, do.	300	0	0
				July 1. ,, do.	600	0	0
				Dec. 31. ,, Interest	51	18	8
				,, Profit	697	1	9
				,, Salary	200	0	0
	£2349	0	5		£2349	0	5

Page 224, Exercise 5 :—

John Thin, Capital Account.

Dec. 31. To Balance	£2610	0	0	Dec. 31. By Balance	£2000	0	0
				,, Profit and Loss Account (share of profit)	610	0	0
	£2610	0	0		£2610	0	0

Richard Black, Capital Account.

Dec. 31. To Balance	£2410	0	0	Dec. 31. By Balance	£1800	0	0
				,, Profit and Loss Account (share of profit)	610	0	0
	£2410	0	0		£2410	0	0

Profit and Loss Account.

To Trade expenses	£100	0	0	By Goods	£1700	0	0
,, Interest	30	0	0				
,, Wages	350	0	0				
,, Capital :—							
John Thin £610 0 0							
Richard Black 610 0 0							
	1220	0	0				
	£1700	0	0		£1700	0	0

BALANCE SHEET as at 31st December.

Liabilities.				*Assets.*			
Bills payable			£2100 0 0	Bank			£3000 0 0
Accounts due			2380 0 0	Goods on hand			2500 0 0
Capital :—				Bills receivable			3200 0 0
John Thin	£2610 0 0			Book accounts receivable			800 0 0
Richard Black	2410 0 0						
			5020 0 0				
			£9500 0 0				£9500 0 0

Page 224, Exercise 6 :—

A, Capital Account.

Dec. 31.	To Cash	£1500	0 0	Jan. 1.	By Balance	£5000	0 0
	,, Balance	4600	0 0	Dec. 31.	,, Interest	250	0 0
					,, Profit and Loss	850	0 0
		£6100	0 0			£6100	0 0

B, Capital Account.

Dec. 31.	To Cash	£1,000	0 0	Jan. 1.	By Balance	£10,000	0 0
	,, Balance	11,200	0 0	Dec. 31.	,, Interest	500	0 0
					,, Profit and Loss	1,700	0 0
		£12,200	0 0			£12,200	0 0

C, Capital Account.

Dec. 31.	To Cash	£2,000	0 0	Jan. 1.	By Balance	£10,000	0 0
	,, Balance	10,200	0 0	Dec. 31.	,, Interest	500	0 0
					,, Profit and Loss	1,700	0 0
		£12,200	0 0			£12,200	0 0

BALANCE SHEET as at 31st December.

Liabilities.					*Assets.*			
As given . .		£8,000	0	0	As given . .	£34,000	0	0
Capital :—								
A .	£4,600 0 0							
B .	11,200 0 0							
C .	10,200 0 0							
		26,000	0	0				
		£34,000	0	0		£34,000	0	0

Page 225, Exercise 7 :—

Profit and Loss Account.

To Bad debts . .		£700	0	0	By Balance . .	£1500	0	0
,, Depreciation .		150	0	0				
,, Smith . .		325	0	0				
,, Black . .		325	0	0				
		£1500	0	0		£1500	0	0

Smith, Capital Account.

To Balance . .		£2325	0	0	By Balance . .	£2000	0	0
					,, Profit and Loss .	325	0	0
		£2325	0	0		£2325	0	0

Black, Capital Account.

To Balance . .		£1825	0	0	By Balance . .	£1500	0	0
					,, Profit and Loss .	325	0	0
		£1825	0	0		£1825	0	0

BALANCE SHEET as at 30th June.

Liabilities.			*Assets.*		
Creditors' Accounts		£8,000 0 0	Customers' Accounts		£7,000 0 0
Bank		1,000 0 0	*Less* 10 per cent		700 0 0
Partners :—					£6,300 0 0
Smith	£2325 0 0		Machinery and plant	£3000 0 0	
Black	1825 0 0		*Less* 5 per cent	150 0 0	
		4,150 0 0			2,850 0 0
			Stock-in-trade		4,000 0 0
		£13,150 0 0			£13,150 0 0

Black will require to pay Smith £2325.

Page 225, Exercise 8 :—

A, Capital Account.

To Share of discount and bad debts	£250 0 0		By Balance	£9,800 0 0	
,, Share of depreciation	200 0 0		,, C.	1,500 0 0	
,, Balance	10,850 0 0				
	£11,300 0 0			£11,300 0 0	

B, Capital Account.

To Share of discount and bad debts	£250 0 0		By Balance	£10,000 0 0	
,, Share of depreciation	200 0 0		,, C	1,500 0 0	
,, Balance	11,050 0 0				
	£11,500 0 0			£11,500 0 0	

BALANCE SHEET as at 1st January.

Liabilities.			*Assets.*		
Creditors		£2,000 0 0	Customers' Accounts		£10,000 0 0
Partners :—			*Less* 5 per cent		500 0 0
A	£10,850 0 0				£9,500 0 0
B	11,050 0 0		Goods		7,000 0 0
C	10,000 0 0		Plant and machinery	£4000 0 0	
		31,900 0 0	*Less* 10 per cent	400 0 0	
					3,600 0 0
			Bank		13,800 0 0
		£33,900 0 0			£33,900 0 0

Page 226, Exercise 9 :—

Profit and Loss Account.

To Cost of goods :—			By Sales	£20,400 0 0
Purchases	£28,750 0 0			
Deduct—				
Stock at close of year	12,600 0 0			
	£16,150 0 0			
,, Freight and carriage	120 0 0			
,, Salaries and wages	570 0 0			
,, Rents, rates, taxes, and insurance	220 0 0			
,, Travelling expenses	190 0 0			
,, Discount and commission	70 0 0			
,, Gas and fuel	40 0 0			
,, Office and petty expenses	120 0 0			
,, John Kay, three-fifths	£1752 0 0			
,, W. Mackay, two-fifths	1168 0 0			
		2,920 0 0		
		£20,400 0 0		£20,400 0 0

BALANCE SHEET

Liabilities.			*Assets.*		
Trade creditors		£2,750 0 0	Trade debtors		£4,320 0 0
Partners—			Stock		12,600 0 0
J. Kay	£12,552 0 0		Bank		6,750 0 0
W. Mackay	8,368 0 0				
		20,920 0 0			
		£23,670 0 0			£23,670 0 0

Page 227, Exercise 10 :—

Brown, Capital Account.

To Balance . .	£3800	0	0	By Balance . .	£1500	0	0
				,, Share of profit	2300	0	0
	£3800	0	0		£3800	0	0

Smith, Capital Account.

To Bank . .	£9400	0	0	By Balance . .	£1550	0	0
				,, Share of profit	2300	0	0
				,, Share of goodwill	5550	0	0
	£9400	0	0		£9400	0	0

BALANCE SHEET as at 1st January.

Liabilities.				*Assets.*			
Creditors' open accounts	£4,000	0	0	Customers' open accounts . .	£5,000	0	0
Bills payable . .	3,000	0	0	Bills receivable .	2,000	0	0
Bank overdraft . .	8,400	0	0		£7,000	0	0
Capital. Brown . .	3,800	0	0	*Deduct* 5 per cent .	350	0	0
					£6,650	0	0
				Stock . . .	7,000	0	0
				Goodwill . .	5,550	0	0
	£19,200	0	0		£19,200	0	0

Page 227, Exercise 11 :—

Profit and Loss Account.

To Cost of goods :—				By Sales		£8500	0 0
Purchases	£6000	0 0		,, Interest on partners' drawings :—			
Deduct—				W. Johnston	£17 10 0		
Stock at end of year	1000	0 0		E. Brown	12 10 0		
	£5000	0 0				30	0 0
,, Rent, rates, taxes, and insurance	150	0 0					
,, Office and general expenses	130	0 0					
,, Freight and carriage	120	0 0					
,, Horse keep	80	0 0					
,, Discounts and allowances	40	0 0					
,, Interest, commission, and bank charges	30	0 0					
,, Printing, stationery, and advertising	20	0 0					
,, Travelling expenses	130	0 0					
,, Salaries and wages	1000	0 0					
	£6700	0 0					
,, Partners' accounts, for profit :—							
W. Johnston £1098 0 0							
E. Brown 732 0 0							
	1830	0 0					
	£8530	0 0				£8530	0 0

BALANCE SHEET as at 31st December.

Liabilities.				*Assets.*			
Trade creditors	£500	0 0		Trade debtors	£3000	0 0	
Partners' capital :—				Stock	1000	0 0	
W. Johnston £3380 10 0				Plant and machinery	1800	0 0	
E. Brown 2219 10 0				Office furniture and fittings	100	0 0	
	5600	0 0		Horses, carts, and harness	200	0 0	
	£6100	0 0			£6100	0 0	

Page 228, Exercise 12 :—

Trading Account.

To Cost of goods :—			By Sales	£5,500	0 0	
Stock at 1st Jan.	£2,100	0 0	,, Consignments	6,700	0 0	
Purchases	10,300	0 0	,, Commissions	610	0 0	
	£12,400	0 0				
Deduct—						
Stock at 31st Dec.	2,300	0 0				
	£10,100	0 0				
,, Wages	400	0 0				
,, Profit and Loss	2,310	0 0				
	£12,810	0 0		£12,810	0 0	

Profit and Loss Account.

To Rent, rates, and insurance			£185	0	0	By Trading Account	£2310	0	0
,, Interest and discount			250	0	0	,, Interest	50	0	0
,, Salaries			650	0	0				
,, Loss on exchange			400	0	0				
,, Reserve for losses on bad debts			123	0	0				
			£1608	0	0				
,, Partners' salaries :—									
A	£100	0 0							
B	100	0 0							
C	50	0 0							
			250	0	0				
,, Interest on partners' capital :—									
A	£90	0 0							
B	60	0 0							
C	30	0 0							
			180	0	0				
,, Partners, for share of profits :—									
A	£161	0 0							
B	107	6 8							
C	53	13 4							
			322	0	0				
			£2360	0	0		£2360	0	0

BALANCE SHEET

Liabilities.						*Assets.*			
Trade creditors			£2890	0	0	Book debts	£4100	0	0
Loan			1200	0	0	*Less* 3 per cent	123	0	0
Partners' capital :—									
A	£1601	0 0					£3977	0	0
B	1017	6 8				Stock	2300	0	0
C	383	13 4				Plant and fixtures	400	0	0
			3002	0	0	Unexpired insurance premium	5	0	0
						Rent paid in advance	10	0	0
						Cash on hand and in bank	400	0	0
			£7092	0	0		£7092	0	0

Page 229, Exercise 13 :—

Manufacturing Account.

o Cost of goods :—				By Profit and Loss Account .	£9340	0 0
Stock at beginning of year	£3000	0 0				
Purchases	6000	0 0				
	£9000	0 0				
Deduct—Stock at end of year	4000	0 0				
	£5000	0 0				
, Wages	4040	0 0				
, Power, etc.	300	0 0				
	£9340	0 0			£9340	0 0

Profit and Loss Account.

o Manufacturing Account .		£9,340	0 0	By Sales	£16,000	0 0
Rent		300	0 0	,, Discount	100	0 0
Travelling expenses . .		150	0 0			
Commission . . .		200	0 0			
Discount		160	0 0			
Freight outwards . .		110	0 0			
Fire insurance . . .		60	0 0			
Interest and bank charges .		60	0 0			
Horse keep		70	0 0			
Advertising		85	0 0			
Bad debts written off . .		100	0 0			
Do. reserved . .		100	0 0			
Sundry expenses . . .		170	0 0			
Depreciation :—						
Machinery	£245 0 0					
Office furniture	19 12 0					
		264	12 0			
Interest on partners' capital :—						
John Smith .	£200 0 0					
William Brown	150 0 0					
		350	0 0			
Salaries of partners :—						
John Smith .	£700 0 0					
William Brown	400 0 0					
		1,100	0 0			
Partners, for share of profits :—						
John Smith	£1740 4 0					
William Brown	1740 4 0					
		3,480	8 0			
		£16,100	0 0		£16,100	0 0

BALANCE SHEET

Liabilities.			*Assets.*		
Creditors' Accounts		£600 0 0	Customers' Accounts		£2,000 0
Bills payable		500 0 0	*Deduct* 5 per cent		100 0
Wages due		40 0 0			£1,900 0
Partners' capital :—					
John Smith	£5740 4 0		Bills receivable		885 0
William Brown	4690 4 0		Stock		4,000 0
	10,430 8 0		Unexpired insurance		20 0
			Machinery £3500 0 0		
			Less 7 per cent 245 0 0		3,255 0
			Buildings		1,000 0
			Office furniture £280 0 0		
			Less 7 per cent 19 12 0		260 8
			Cash on hand and in bank		250 0
	£11,570 8 0				£11,570 8

Page 230, Exercise 14 :—

Profit and Loss Account.

To Cost of goods :—			By Sales	£10,000 0
Stock at 1st Jan.	£4,500 0 0			
Purchases	7,000 0 0			
	£11,500 0 0			
Deduct—Stock at 31st Dec.	5,000 0 0			
	£6,500 0 0			
,, Wages	1,500 0 0			
,, Rent, rates, taxes, etc.	100 0 0			
,, Patent rights—written off	200 0 0			
,, Coal and lighting	150 0 0			
,, Carriage	100 0 0			
,, Trade expenses	150 0 0			
,, Depreciation	112 10 0			
	£8,812 10 0			
,, Partners, for share of profit :—				
John Richards £730 15 5				
Robert Low 456 14 7				
	1,187 10 0			
	£10,000 0 0			£10,000 0

Balance Sheet

Liabilities.			*Assets.*		
Creditors		£1,750 0 0	Book debts		£3,200 0 0
Partners :—			Stock		5,000 0 0
John Richards	£8130 15 5		Plant and machinery	£2250 0 0	
Robert Low	5056 14 7		*Less* 5 per cent	112 10 0	
		13,187 10 0			2,137 10 0
			Land and buildings		3,000 0 0
			Patent rights		200 0 0
			Bank		1,400 0 0
		£14,937 10 0			£14,937 10 0

Page 231, Exercise 15 :—

Profit and Loss Account.

To Cost of goods :—			By Sales	£8000 0 0
Stock at beginning of year	£3000 0 0			
Purchases	5000 0 0			
	£8000 0 0			
Deduct—Stock at end of year	2100 0 0			
	£5900 0 0			
,, Rent, rates, taxes, and insurance	400 0 0			
,, Freight and carriage	70 0 0			
,, Salaries and wages	430 0 0			
,, Coals, gas, and lighting	40 0 0			
,, Printing, stationery, and advertising	60 0 0			
,, General office expenses	50 0 0			
,, Discount and commission	150 0 0			
	£7100 0 0			
,, Partners, for share of profit :—				
Gow	£600 0 0			
Erskine	200 0 0			
Scott	100 0 0			
	900 0 0			
	£8000 0 0			£8000 0 0

BALANCE SHEET

Liabilities.				*Assets.*			
Creditors			£1100 0 0	Debtors			£3600 0
Partners :—				Stock			2100 0
Gow	£5400 0 0			Fixtures and fittings			400 0
Erskine	1800 0 0			Land and buildings			2300 0
Scott	900 0 0			Bank			800 0
		8100 0 0					
		£9200 0 0					£9200 0

Page 232, Exercise 16 :—

JOURNAL.

FRASER . . . . . *Dr.*	£3211 12 8		
To Ruby Diamond Co. Invest. Account, to close this account		£3000 0 0	
„ Ross's account for 5 per cent. compound interest thereon for two years—$\frac{2}{3}$rds proportion		205 0 0	
„ Do. for $\frac{2}{3}$rds expenses of purchase of said invest. in December 1896		6 0 0	
„ Do. for 5 per cent. compound interest thereon		0 12 8	

Page 244, Exercise 1 :—

The average annual profit from manufacturing is £6000.

Page 244, Exercise 2 :—

SCOTTISH UNION BANK

PROFIT AND LOSS ACCOUNT

Expenditure.		*Income.*	
To Bad debts	£3,000 0 0	By Gross profit	£32,490 0
„ Expenses	11,500 0 0		
„ Balance carried down, being profit for year	17,990 0 0		
	£32,490 0 0		£32,490 0
To Interim dividend paid	£5,720 0 0	By Balance of profit from last year	£1,560 0
„ Balance	13,830 0 0	„ Profit for year as above	17,990 0
	£19,550 0 0		£19,550 0

BALANCE SHEET as at 31st December.

Liabilities.			*Assets.*	
Due to public :—			Cash in hand . . .	£38,135 0 0
Notes issued . . .	£39,700 0 0		Cash at call	44,230 0 0
Customers' credit balances	897,530 0 0		Investments	328,465 0 0
	£937,230 0 0		Stamps in hand . . .	505 0 0
Due to shareholders :—			Premises	37,250 0 0
Capital . £114,430 0 0			Customers' debit balances .	762,355 0 0
Reserves . 145,210 0 0				
Unpaid dividends 240 0 0				
Undivided profit . 13,830 0 0				
	273,710 0 0			
	£1,210,940 0 0			£1,210,940 0 0

Page 244, Exercise 3 :—

REVISED BALANCE SHEET

Liabilities.			*Assets.*		
Capital :—			Expenditure on Capital Account .	£74,800 0 0	
15,000 shares of £5 each . .	£75,000 0 0		*Less*—Written off.	47,200 0 0	
Less — Calls in arrear . .	7,500 0 0			£27,600 0 0	
	£67,500 0 0		Book debts . .	32,100 0 0	
Creditors . . .	17,800 0 0		Stock	19,900 0 0	
	£85,300 0 0		Cash	5,700 0 0	
				£85,300 0 0	

Page 245, Exercise 4 :—

Assets.	*Increase.*	*Decrease.*
Land and buildings	£400 0 0	
Plant and machinery		£1700 0 0
Horses and waggons		450 0 0
Goods on hand	3200 0 0	
Accounts receivable		400 0 0
Cash in bank		170 0 0
Agency investments	3000 0 0	
	£6600 0 0	£2720 0 0
Net increase of Assets		3880 0 0
		£6600 0 0

Liabilities.	*Decrease.*	*Increase.*
Creditors on open accounts		£200 0 0
Bills payable	£6000 0 0	
Mortgage		5000 0 0
	£6000 0 0	£5200 0 0
Net decrease of Liabilities		800 0 0
		£6000 0 0

The profits earned, amounting to £4680, are accounted for as follows :—

Increase of Assets	£3880 0 0
Decrease of Liabilities	800 0 0
	£4680 0 0

Page 246, Exercise 5 :—

Profit and Loss Account for Half-year.

To Cost of goods :—				By Sales . .	£87,670	0 0
Stock on hand, 1st July .	£11,600	0	0			
Purchases . .	33,000	0	0			
	£44,600	0	0			
Deduct — Stock on hand, 31st December .	10,600	0	0			
	£34,000	0	0			
,, Wages . .	35,200	0	0			
,, Coal . . .	2,400	0	0			
,, Salaries, general .	4,400	0	0			
,, do. management. . .	2,000	0	0			
,, Insurance . .	350	0	0			
,, Repairs . .	400	0	0			
,, Discount and allowances . .	2,500	0	0			
,, Freight . .	600	0	0			
,, Discount and interest . .	300	0	0			
,, Miscellaneous expenses . .	1,720	0	0			
,, Allowance for bad debts . .	940	0	0			
,, Depreciation .	480	0	0			
	£85,290	0	0			
,, Profit for half-year	2,380	0	0			
	£87,670	0	0		£87,670	0 0
To Dividend for half-year on preference shares .	£800	0	0	By Balance . .	£1,600	0 0
,, do. on ordinary shares .	600	0	0	,, Profit for half-year as above .	2,380	0 0
,, Balance . .	2,580	0	0			
	£3,980	0	0		£3,980	0 0

BALANCE SHEET.

Liabilities.			*Assets.*		
Accounts payable		£4,000 0 0	Book debts		£18,800 0
Bills payable		10,400 0 0	*Less*—Allowance for bad debts		940 0
Due to shareholders:—					£17,860 0
Preference stock	£40,000		Stock on hand		10,600 0
Ordinary stock	40,000		Investments		6,200 0
	£80,000		Plant and machinery	£16,000	
Dividend for half-year on preferred stock	800		*Less* 6 per cent. per annum	480	15,520 0
Dividend for half-year on ordinary stock	600		Property and buildings		13,000 0
Undivided profit	2,580		Patents and goodwill		32,000 0
		83,980 0 0	Cash in bank		3,200 0
		£98,380 0 0			£98,380 0

Page 247, Exercise 6:—

Trading Account.

To Cost of goods:—			By Sales	£80,000	0 0
Stock at beginning of year	£10,000	0 0	„ Commissions	1,500	0 0
Purchases	60,000	0 0			
	£70,000	0 0			
Deduct—Stock at end of year	9,000	0 0			
	£61,000	0 0			
„ Wages	4,500	0 0			
„ Fire Insurance	150	0 0			
„ Rent	3,000	0 0			
„ Rates and taxes	500	0 0			
„ Gas, electric light, and water	600	0 0			
„ Advertising	900	0 0			
„ Price lists	1,600	0 0			
„ Carriage, etc.	1,500	0 0			
„ General trade expenses	400	0 0			
„ Discount	80	0 0			
„ Annual painting of premises	70	0 0			
„ Salaries	700	0 0			
	£75,000	0 0			
„ Balance carried to Profit and Loss Account	6,500	0 0			
	£81,500	0 0		£81,500	0 0

Profit and Loss Account.

To Interest	£500	0	0	By Trading Account	£6500	0	0
,, Bad debts	200	0	0	,, Discount	2000	0	0
,, Preliminary expenses	500	0	0				
	£1200	0	0				
,, Balance, profit for year	7300	0	0				
	£8500	0	0		£8500	0	0
To Interim dividend	£1500	0	0	By Balance from last year	£1000	0	0
,, Balance	6800	0	0	,, Profit for year as above	7300	0	0
	£8300	0	0		£8300	0	0

BALANCE SHEET as at 31st December.

Liabilities.					*Assets.*			
Due to creditors :—					Sundry debtors		£3,250	0 0
Sundry creditors		£15,000	0	0	Stock		9,000	0 0
Bills payable		2,000	0	0	Land and buildings		12,000	0 0
		£17,000	0	0	Fixtures and furniture		700	0 0
Due to shareholders :—					Fire insurance paid in advance		50	0 0
Capital	£10,000				Goodwill		3,000	0 0
Undivided profit	6,800				Preliminary expenses		500	0 0
		16,800	0	0	Cash on deposit		5,000	0 0
					Cash in bank		200	0 0
					Cash in hand		100	0 0
		£33,800	0	0			£33,800	0 0

Page 250, Exercise 1 :—

JOURNAL

Goods	*Dr.*	£30,000	0	0		
Book debts	,,	8,000	0	0		
Fixtures, fittings, and utensils	,,	1,000	0	0		
Plant	,,	1,500	0	0		
Goodwill	,,	9,500	0	0		
To Tod & Co.					£50,000	0 0
Tod & Co.	*Dr.*	50,000	0	0		
To Cash					10,000	0 0
,, Capital					40,000	0 0

Page 251, Exercise 2 :—

1. Closing Entries

Journal.

Company	*Dr*	£48,000	0	0			
To Land and buildings					£10,000	0	0
,, Plant and machinery					15,000	0	0
,, Book debts					7,000	0	0
,, Goods					8,000	0	0
,, Goodwill					8,000	0	0
Bills payable	*Dr.*	3,000	0	0			
Debentures	,,	15,000	0	0			
Preference shares	,,	15,000	0	0			
Ordinary shares	,,	15,000	0	0			
To Company					48,000	0	0

2. Opening Entries

Journal.

Land and buildings	*Dr.*	£10,000	0	0			
Plant and machinery	,,	15,000	0	0			
Book debts	,,	7,000	0	0			
Goods	,,	8,000	0	0			
Goodwill	,,	8,000	0	0			
To Bills payable					£3,000	0	0
,, Debentures					15,000	0	0
,, Preference shares					15,000	0	0
,, Ordinary shares					15,000	0	0

Page 251, Exercise 3 :—

	A			B			C		
Net Assets	£14,000	0	0	£20,000	0	0	£25,000	0	0
Goodwill, say three years' purchase of net profits	6,000	0	0	9,000	0	0	3,000	0	0
Stock to be allotted	£20,000	0	0	£29,000	0	0	£28,000	0	0

Total, £77,000.

Page 251, Exercise 4 :—

JOURNAL

Cash		Dr.	£21,000	0	0		
To Capital						£21,000	0 0
Land and buildings		Dr.	5,000	0	0		
Coal-gas plant, machinery, and fittings		,,	2,200	0	0		
Water-gas plant, machinery, and fittings		,,	1,800	0	0		
Mains		,,	6,000	0	0		
Meters		,,	300	0	0		
Supplies		,,	700	0	0		
Office furniture and fittings		,,	150	0	0		
To Private firm						16,000	0 0
,, Reserve Fund						150	0 0
Private firm		Dr.	16,000	0	0		
To Cash						13,000	0 0
,, Heritable bond						3,000	0 0

Page 257, Exercise 1 :—

Profit and Loss Account.

To Stock at 1st January	£7,000	0	0	By Sales	£13,000	0	0
,, Purchases	8,000	0	0	,, Stock at 30th June	8,000	0	0
,, Wages (making)	2,400	0	0				
,, Balance carried down	3,600	0	0				
	£21,000	0	0		£21,000	0	0
To Wages (foreman and warehouse)	£300	0	0	By Balance brought down	£3,600	0	0
,, Salesman and office expenses	500	0	0				
,, Rent, rates, and insurance	100	0	0				
,, Travelling and commission	310	0	0				
,, Advertising and other trade expenses	200	0	0				
,, Discounts and bad debts	350	0	0				
,, Bank interest and charges	50	0	0				
,, Interest on loan	50	0	0				
,, Net profit	1,740	0	0				
	£3,600	0	0		£3,600	0	0

Page 257, Exercise 2 :—

Trading Account.

To Stock at beginning of year	£3,000	0	0	By Sales	£30,000	0	0
,, Purchases	25,000	0	0	,, Stock at end of year	2,500	0	0
,, Gross profit on goods	4,500	0	0				
	£32,500	0	0		£32,500	0	0

Profit and Loss Account.

To Rent, rates, taxes, etc.	£500	0	0	By Gross profit on goods	£4500	0	0
,, General expenses	300	0	0	,, Discount	900	0	0
,, Petty cash	98	0	0				
,, Wages and salaries	1300	0	0				
,, Carriage	300	0	0				
,, Bad debts	150	0	0				
,, Net profit	2752	0	0				
	£5400	0	0		£5400	0	0

BALANCE SHEET as at 31st December.

Liabilities.				*Assets.*			
Trade creditors	£3,000	0	0	Customers	£7,047	0	0
Bills payable	1,000	0	0	Bills receivable	2,000	0	0
W. S. Black, Capital	8,752	0	0	Stock	2,500	0	0
				Bank	1,200	0	0
				Petty cash on hand	5	0	0
	£12,752	0	0		£12,752	0	0

Page 258, Exercise 3 :—

Trading Account.

To Stock at 1st Jan.	£12,500	0	0	By Sales	£53,100	0	0
,, Purchases	41,750	0	0	,, Stock at 31st Dec.	16,400	0	0
,, Wages	7,910	0	0				
,, Depreciation on machinery and plant	155	0	0				
,, Balance, carried to Profit and Loss	7,185	0	0				
	£69,500	0	0		£69,500	0	0

Profit and Loss Account.

To Fire insurance	£60	0	0	By Trading Account	£7185	0	0
,, Discount	310	0	0				
,, Rent, rates, and taxes	730	0	0				
,, Bad debts	660	0	0				
,, Trade expenses	345	0	0				
,, Net profit	5080	0	0				
	£7185	0	0		£7185	0	0

BALANCE SHEET as at 31st December.

Liabilities.				*Assets.*			
Creditors :—				Customers :—			
On open account	£6,225	0	0	On open accounts	£11,100	0	0
On bills payable	7,900	0	0	On bills receivable	1,450	0	0
	£14,125	0	0		£12,550	0	0
Charges outstanding	50	0	0	Consignments	3,100	0	0
Advances on consignments	2,400	0	0	Stock	16,400	0	0
Reserve and contingency fund	850	0	0	Machinery and plant	2,945	0	0
John Dick, capital	21,280	0	0	Bank	3,710	0	0
	£38,705	0	0		£38,705	0	0

Page 259, Exercise 4 :—

Profit and Loss Account.

To Stock at 1st January	£3,000	0	0	By Sales	£19,000	0	0
,, Purchases	7,600	0	0	,, Rent of steam power	300	0	0
,, Wages	4,800	0	0	,, Stock at 31st December	5,000	0	0
,, Fuel	600	0	0				
,, Depreciation of machinery and plant	700	0	0				
,, Balance carried down	7,600	0	0				
	£24,300	0	0		£24,300	0	0
To Salaries	£1,200	0	0	By Balance brought down	£7,600	0	0
,, Travelling expenses	500	0	0				
,, Interest	120	0	0				
,, Stationery and printing	240	0	0				
,, Rent and taxes	700	0	0				
,, Discounts and allowances	400	0	0				
,, Insurance	190	0	0				
,, Freight	300	0	0				
,, General expenses	120	0	0				
,, Balance carried down	3,830	0	0				
	£7,600	0	0		£7,600	0	0
To Interest on capital :—				By Balance brought down	£3,830	0	0
A	£400	0	0				
B	200	0	0				
	£600	0	0				
,, Net profit, allocated thus :—							
A, two-thirds £2,153 6 8							
B, one-third 1,076 13 4							
	3,230	0	0				
	£3,830	0	0		£3,830	0	0

BALANCE SHEET as at 31st December.

Liabilities.			*Assets.*		
Creditors	£800 0 0		Customers	£5,000 0 0	
Bank overdraft	1,000 0 0		*Less* Discount at 3 per cent	150 0 0	
Capital :—				£4,850 0 0	
A £10,553 6 8					
B 5,276 13 4			Plant and machinery £7000		
	15,830 0 0		*Less* Depreciation at 10 per cent 700		
				6,300 0 0	
			Stock	5,000 0 0	
			Unexpired insurance	40 0 0	
			Loan Account	1,400 0 0	
			Cash on hand	40 0 0	
	£17,630 0 0			£17,630 0 0	

Page 259, Exercise 5 :—

Trading Account.

To Stock at beginning of year	£2,500 0 0		By Sales	£10,000 0 0	
,, Purchases	8,000 0 0		,, Stock at end of year	3,000 0 0	
,, Coal	70 0 0				
,, Gas and water	20 0 0				
,, Oil, grease, and waste	40 0 0				
,, Wages	1,000 0 0				
,, Repairs	100 0 0				
,, Depreciation of machinery, etc.	200 0 0				
,, Gross profit on trading	1,070 0 0				
	£13,000 0 0			£13,000 0 0	

Profit and Loss Account.

To Carriage, cartage, and horse expenses	£500 0 0		By Trading Account	£1070 0 0	
,, Feu-duty	50 0 0		,, Net loss, allocated thus :—		
,, Rates, taxes, and insurance	70 0 0		Jamieson £516 13 4		
,, Bank interest	20 0 0		Robb 413 6 8		
,, Discounts and allowances	410 0 0			930 0 0	
,, Bad debts	100 0 0				
,, Salaries	400 0 0				
,, Incidental expenses	150 0 0				
,, Partners' salaries	300 0 0				
	£2000 0 0			£2000 0 0	

BALANCE SHEET as at 31st December.

Liabilities.				*Assets.*			
Creditors :—				Customers :—			
On open account		£2,000	0 0	On open account	£4,200	0	0
On bills payable		3,000	0 0	On bills receivable	1,000	0	0
		£5,000	0 0		£5,200	0	0
Expenses accrued to date		50	0 0				
Provision for discount		210	0 0	Stock	3,000	0	0
Provision for bad debts		40	0 0	Buildings, fixed machinery, and plant	3,800	0	0
Capital :—				Horses, carts, harness, etc.	400	0	0
J. Jamieson £4483 6 8				Loose tools, utensils, and furniture	150	0	0
R. Robb 3586 13 4		8,070	0 0	Cash at bank	800	0	0
				Cash in hand	20	0	0
		£13,370	0 0		£13,370	0	0

Page 260, Exercise 6 :—

Profit and Loss Account.

To Stock at beginning of year	£2,000	0	0	By Sales	£10,000	0	0
,, Purchases	2,000	0	0	,, Stock at end of year	2,040	0	0
,, Wages	5,000	0	0				
,, Books, labels, etc.	500	0	0				
,, Rates and taxes	40	0	0				
,, Insurance	10	0	0				
,, Carriage	150	0	0				
,, Petty cash and postages	95	0	0				
,, Interest on loan	50	0	0				
,, Discount and bad debts	60	0	0				
,, Depreciation	135	0	0				
	£10,040	0	0				
,, Net profit	2,000	0	0				
	£12,040	0	0		£12,040	0	0

BALANCE SHEET as at 31st December.

Liabilities.		*Assets.*	
Creditors	£1500 0 0	Due by customers	£1000 0 0
Loans (including interest due, £50)	1050 0 0	*Less* 6 per cent	60 0 0
Capital	5700 0 0		£940 0 0
		Bills receivable	500 0 0
		Stock	2040 0 0
		Machinery and plant	1425 0 0
		Land and buildings	1940 0 0
		Stamps on hand	5 0 0
		Cash at bank and in hand	1400 0 0
	£8250 0 0		£8250 0 0

Page 272, Exercise :—

Goods Account.

Jan. 1.	To Stock	£3000	0 0	Jan. 31.	By Sales	£6000	0 0
31.	,, Purchases	4000	0 0		,, Stock	2515	0 0
	,, Gross profit	1515	0 0				
		£8515	0 0			£8515	0 0

Page 273, Exercise 1 :—

Profit and Loss Account.

To Salaries	£600 0 0	By Fees and commissions :—	
,, Rent, rates, and taxes	90 0 0	Received during year	£2000 0 0
,, Office expenses	250 0 0	Outstanding at close of year	700 0 0
,, Stationery	60 0 0		£2700 0 0
	£1000 0 0	*Deduct*—Outstanding at beginning of year	500 0 0
,, Capital	1200 0 0		£2200 0 0
	£2200 0 0		

BALANCE SHEET as at 31st December.

Liabilities.		*Assets.*	
Due to clients	£1500 0 0	Due by clients	£3000 0 0
Capital	3100 0 0	Fees and commissions outstanding	700 0 0
		Office furniture and fittings	200 0 0
		Bank	700 0 0
	£4600 0 0		£4600 0 0

Page 273, Exercise 2 :—

Profit and Loss Account.

To Wages and salaries	£17,000 0 0	By Gross profit on goods	£22,300 0 0
,, Sundry expenses	900 0 0	,, Discount	600 0 0
,, Taxes and insurance	175 0 0	,, Profit on sale of consols	150 0 0
,, Repairs	300 0 0	,, Profit on sale of £1000 Great Western ordinary stock	30 0 0
,, Bad debts	1,333 6 8		
,, Interest	25 0 0		
,, Capital, for net profit	3,346 13 4		
	£23,080 0 0		£23,080 0 0

BALANCE SHEET as at 31st December.

Liabilities.		*Assets.*	
Due to bank	£500 0 0	Sundry debtors	£1,766 13 4
Capital	10,966 13 4	Stock	1,800 0 0
		Plant and machinery	2,500 0 0
		Warehouse	3,000 0 0
		Cash	2,400 0 0
	£11,466 13 4		£11,466 13 4

Page 274, Exercise 3 :—

Profit and Loss Account.

To Stock at 1st July		£15,000	0	0	By Sales	£34,500	0
,, Purchases		18,500	0	0	,, Stock at 30th June	13,000	0
,, Wages		3,100	0	0			
,, Repairs		300	0	0			
,, Balance carried down		10,600	0	0			
		£47,500	0	0		£47,500	0
To Salaries and wages—office		£800	0	0	By Balance brought down	£10,600	0
,, Carriage and freight		1,500	0	0			
,, Rates and insurance		1,550	0	0			
,, Trade expenses		1,250	0	0			
,, Discounts and allowances		1,475	0	0			
,, Bad debts		350	0	0			
,, Bank interest and charges		250	0	0			
,, Interest on bond on property		200	0	0			
,, Partners' salaries		900	0	0			
,, Net profit, allocated thus :—							
W. Hardie	£1511 5 0						
T. Allan	813 15 0						
		2,325	0	0			
		£10,600	0	0		£10,600	0

BALANCE SHEET as at 30th June.

Liabilities.				*Assets.*			
Creditors	£7,500	0	0	Customers	£11,500	0	
Bankers	3,000	0	0	Stock	13,000	0	
Bond over property	5,000	0	0	Heritable property	10,000	0	
Allowance for bad debts	150	0	0	Machinery and plant	2,500	0	
Allowance for discounts	575	0	0	Loose tools, horses, etc.	1,550	0	
Trade expenses outstanding	50	0	0	Cash in hand	50	0	
Capital :—							
W. Hardie £14,511 5 0							
T. Allan 7,813 15 0							
	22,325	0	0				
	£38,600	0	0		£38,600	0	

Page 275, Exercise 4:—

Profit and Loss Account.

To Goods on hand at 1st July	£2,741	0	0	By Sales (less returns, £330)	£15,670	0	0
,, Purchases	8,400	0	0	,, Stock on hand at 31st Dec.	3,500	0	0
,, Wages	1,404	0	0				
,, Repairs	84	0	0				
,, Depreciation on plant and machinery	150	0	0				
,, Balance carried down	6,391	0	0				
	£19,170	0	0		£19,170	0	0
To Discount	£548	0	0	By Balance brought down	£6,391	0	0
,, Rent, rates, and taxes	100	0	0	,, Royalties	40	0	0
,, Advertising	460	0	0				
,, Traveller's salary	430	0	0				
,, Carriage	390	0	0				
,, Bad debts	100	0	0				
,, Interest	120	0	0				
,, Trade and general expenses	502	0	0				
	£2,650	0	0				
,, Net profit, allocated thus:—							
Smart, two-thirds £2520 13 4							
Currie, one-third 1260 6 8							
	3,781	0	0				
	£6,431	0	0		£6,431	0	0

BALANCE SHEET as at 31st December

Liabilities.				*Assets.*			
Creditors	£1,970	0	0	Debtors	£7,365	0	0
Loan on mortgage	4,500	0	0	Bills receivable	200	0	0
Royalty received in advance	500	0	0	Stock	3,500	0	0
Reserve for bad and doubtful debts	540	0	0	Buildings	4,000	0	0
				Plant and machinery	2,850	0	0
Reserve for discounts on book debts	197	0	0	Patent rights	50	0	0
				Cash at bankers	600	0	0
Capital:—				Petty cash on hand	3	0	0
Smart £7320 13 4							
Currie 3540 6 8							
	10,861	0	0				
	£18,568	0	0		£18,568	0	0

Page 276, Exercise 5 :—

YOUNG, SCOTT, & ALLAN

Profit and Loss Account.

To Stock, etc., at 1st January			£1,400	0	0	By Sales	£12,541	0
,, Purchases :—						,, Stock at 31st December	1,300	0
Materials	£2500	0 0						
Goods	4000	0 0						
			6,500	0	0			
,, Wages			3,800	0	0			
,, Repairs and renewals			70	0	0			
,, Depreciation on machinery and plant			100	0	0			
,, Gas for lighting and power			85	0	0			
,, Balance carried down			1,886	0	0			
			£13,841	0	0		£13,841	0
To Salaries and commissions			£400	0	0	By Balance brought down	£1,886	0
,, Postages and stationery			60	0	0			
,, Carriage and cartage			70	0	0			
,, Rent, rates, and taxes			150	0	0			
,, Insurances			17	0	0			
,, Advertising			25	0	0			
,, Trade expenses			30	0	0			
,, Discount			54	0	0			
,, Goodwill			25	0	0			
,, Balance carried down			1,055	0	0			
			£1,886	0	0		£1,886	0
To Interest on partners' capital :—						By Balance brought down	£1,055	0
Young			£80	0	0	,, Interest on partners' drawings :—		
Scott			45	0	0	Young	£3 0 0	
Allan			45	0	0	Scott	2 0 0	
			£170	0	0	Allan	1 0 0	
							6	0
,, Net profit allocated thus :—								
Young, one-half	£445	10 0						
Scott, one-fourth	222	15 0						
Allan, one-fourth	222	15 0						
			891	0	0			
			£1,061	0	0		£1,061	0

BALANCE SHEET as at 31st December.

Liabilities.			*Assets.*	
Sundry creditors	£230 0 0		Sundry debtors	£800 0 0
Allowance for discounts	70 0 0		Stock	1300 0 0
Capital :—			Goodwill	175 0 0
Young £2022 10 0			Patents	100 0 0
Scott 1095 15 0			Patterns and drawings	110 0 0
Allan 1106 15 0			Plant and machinery	1400 0 0
	4225 0 0		Cash at bank	600 0 0
			Cash in hand	40 0 0
	£4525 0 0			£4525 0 0

Page 309, Exercise :—

Net profit per accounts	£1000 0 0	£1050 0 0	£1100 0 0
Add the following items charged before arriving at net profit, but upon which income tax is payable :—			
Income tax	24 0 0	27 0 0	30 0 0
Feu-duty	25 0 0	25 0 0	25 0 0
Interest on mortgage	100 0 0	100 0 0	100 0 0
Interest on loan	40 0 0	60 0 0	60 0 0
Interest on capital	250 0 0	280 0 0	300 0 0
Partners' salaries	500 0 0	500 0 0	500 0 0
Profit for assessment purposes	£1939 0 0	£2042 0 0	£2115 0 0

An assessable average of £2032 0 0

Page 356 :—

Exercise 1. 1st August.
Exercise 2. 31st January.

INDEX

Abstract of Customers' Ledger and Purchases Ledger, method of preparing, 33
Accident insurance, 148
Accountant, classification of business of an, 3
Accounting, definition of, 1
  main branches of, 1
Allotment letter, form of, 241
Analysis of Ledger Accounts, 109
Application and Allotment Book of joint-stock company, 234
Apportionment, Act of 1870, 154
  annuities, 165
  bonuses returned as capital, 167
  casualties, 164
  commercial, 157
  dividends and interest upon shares and debentures in public companies, 166
  exceptions to, 170
  fore-hand rents, 163
  heritors' assessment, 164
  in connection with testamentary deeds, 156
  interest on money lent, 165
  interim dividends and bonuses, 166
  minister's stipend, 164
  profit from private partnerships, 169
  property not producing revenue, 171
  rent charges, 164
  rents, 160
  rents under the Land Clauses Act, 1845, 169
  stocks and shares bought and sold, 167
  table of particulars of companies, 174
  use of interest tables in apportioning sums for different periods, 153
  wages and salaries of servants and workmen, 165
Appropriation Account, Profit and Loss, 56
Arrangement of Profit and Loss Accounts, 55
Assessment tables, to prepare, 310
Assets, definition, 67
  fixed, 67
  floating, 67
  in connection with investigations, 333
  permanent, 67
  valuation of, in bankrupt estates, 83
Assurance, life, 147
Audit, commercial accounts, 353
  companies, 351
  objects of, 348
  office regulations to prevent fraud, 353
  partial, 352
  Partnership Accounts, 350
  points to be attended to in a first audit, 350
  Report under Companies Acts, 352
Auditor, the duties and responsibilities of an, 348
Average due date, to calculate, 354

Balance Account, 72
Balance, contracts not completed at date of, 267
Balance Sheet, 18
  arrangement of, 76
  connection between the Trial Balance, Profit and Loss Account, and Balance Sheet, 65
  definitions of, 69, 70
  distinction between Profit and Loss Account and Balance Sheet, 70
  double account form of, 79
  on which side the assets should be placed, 70
  regulations under Companies Acts, 74
Bankrupt, Statement of Affairs of a, 83

Bill Book and Journal, 26
Bills of exchange, 8, 9, 149
Book-keeping, basis of accounting, 2
by double entry, compared with single entry, 42
definition of, 4
features of best system of, 23
points to be kept in mind in devising a set of books for a business, 22
practical, 22
practical, further developed, 32
single entry, 42
the whole theory of, contained in Ledger, 22
Branches, accounts of, 95
foreign, 288
British currency, 277

Call letter, form of, 243
Capital Account, in double account form of Balance Sheet, 79
the account of the owner of a business, 69
Capital, as excess of assets over liabilities, 69
definition of, 68
insurance of the risk of losing, 47
return from, how divided by economists, 47
Card or loose-leaf system of keeping Ledger Accounts, 114
applied to Shareholders' Ledger, 115
Cash Book, example of columnar, 34
in practical book-keeping, 23
with Discount, Bank, and Cash columns, 27
Cash on hand, in auditing, 350
Charge and Discharge Account, 175, 180
Charges, shop establishment, 265
Check Ledgers, 113
Closing entries, 15
use of Journal for, 25
Colliery sinking or redemption funds, 128
Columnar Cash Book, description of, 32
posting of, 33
specimen, 34
Companies, joint-stock, exercises, 244, 250
points to be attended to in auditing, 351
table of particulars for apportionment, 174
Companies, the conversion of a private firm into a joint-stock company, 248
Comparative Statements, 335
Consignment Account, 131
Contingent fund, 121
Contingent liability, 68
Contracts not completed at date of balance, 267
Conversion of foreign currencies, 288
Cost Accounts, definition of, 261
Cost, items of, 263
Cost of goods entered in Trading Account, 59
Cost, prime, 263, 265
Course of the exchanges, 300
Creditors' Ledger, 26
Currencies, foreign, 285
Currency, British, 277
French, 281
German, 281
Indian, 278
United States, 280
Current Accounts, interest on, 356
Curves and Diagrams, 344
Customers' Ledger, 26
abstract, method of preparing, 33

Day Book, 25
Days, table for finding the days between two given dates, 369
table of days as decimal fractions of a year, 373
Debenture bond sinking fund, 122
Debenture reserve fund, 120
Debenture Ledger, 240
Debtors' Ledger, 26
Decimals, rule for expressing shillings and pence as, 363
Deficiency Account of a bankrupt, 89
Departments and Departmental Accounts, 98
Trading Account of business having two, 60
Depreciation, 137
to find the rate to be written off, 138
Direct and indirect expenses, 263, 264
Discount, 17
Double account form of Balance Sheet, 79

Engineers' Accounts, 265
Equated time of payment, 354
Errors, localisation of, 22
Estimated Cost Account, 261
Exchanges, foreign, 297
the course of the, 300

Exchanges, the, as published in the newspapers, 301
Expenses, general establishment, 266
direct and indirect, 263

Fire insurance, 143
Fixed assets, 67
Fixed liabilities, 67
Floating assets, 67
Floating liabilities, 67
Foreign branches, 288
currencies and their treatment in Home Accounts, 285
currencies, rules for conversion of, 288
exchanges, 297
moneys, 283
French currency, 281

General establishment expenses, 266
General Ledger, 26
German currency, 281
Goods Account, 15
a revenue as well as a real account, 105
definition, 51
to ascertain the profit on goods without taking stock, 267
Goods destroyed by fire, to find the cost value of, 271
partially manufactured and completed, how valued at stock-taking, 53
sold on commission, 53
treatment of goods on hand at close of year, 16
Goodwill, definition, 134
how valued, 135
Gross profit, in percentage statements, 335
shown by Trading Account, 59
Guarantee insurance, 149

Hire-purchase system of acquiring railway waggons, 324

Impersonal Accounts, 105
Income and Expenditure Account, 133
Income Tax, 302
Income Tax Tables, preparation of, 309
Indian currency, 278
Indirect expenses, 263
Instalments, loans repayable by, 314
Insurance, 143
accident, 148
fire, 143
Insurance, guarantee, 149
life, 147
marine, 145
Interest, on capital, 47
on Current Accounts, 356
on partners' Capital Accounts, 197
Investigations, 329
Investment fund, 119
Invoice Book, 24

Joint Account, 131
Joint-stock companies' books, 233
Journal, Bill, 26
Journal, definition and use of, in practice, 25

Labour, in Cost Accounts, 264
Leases, redemption of, 322
Ledger Accounts, division of, 105
definition of, 4, 104
Ledger balances, statement of, 70
Ledger, Card, 114
Check, 113
Customers', 26
definition of, 4, 104
division of, 26
general, 26
private, 26
Purchases, 26
Self-balancing, 33, 107
the essential book in book-keeping, 22
to analyse the accounts in a, 109
to balance Ledgers separately, 107
Legal tender, 278
Letter of regret, form of, 242
Liabilities, classification of, 68
definition, 67
fixed, 67
in connection with investigations, 332
floating, 67
Life assurance, 147
Life Insurance Abatement, 308
Liquidation Account, 130
Loans repayable by instalments, 314
Local authorities, rates of, 310
Logarithms, explanation of use of, 365
table of, 376
use of, in preparing percentage statements, 338
Loss, definition of, 48

Manufacturers' Accounts, 252
Manufacturing Accounts, 61
Margin, 119
Marine insurance, 145

Material, in Cost Accounts, 264
Mint par, 300
Minute Book of joint-stock company, 233
Moneys, foreign, 283

Nominal Accounts, 105, 106

Office regulations to prevent fraud, 353
Opening entries, use of Journal for, 25
Original entries, should be utilised in book-keeping, 22
Original record, books of, 25

Par, Mint, 300
Partnership, 194
  Accounts, points to be attended to in auditing, 350
  assumption of a partner, 211
  dissolution of, 213
  division of profits, 205
  goodwill in, 195
  Income Tax assessment on, 308
  interest on Partners' Accounts, 197
  limited, 197
  transactions worked out, 219
Percentage statements, 335
Percentages, to calculate a series of, 337
Permanent assets, 67
Personal Accounts, 105, 106
Preferable claims, treatment of, in bankruptcy statements, 84
Preferable liability, definition of, 68
Prime cost, 263, 265
Private Ledger, method of using, 26
Products, method of calculating interest on Current Accounts by means of, 358
  use of table of, in preparing percentage statements, 339
Professional and other non-manufacturing and non-trading concerns, the accounts of, 272
Profit, 47
  division of, in partnership, 205
  statutory or legal, 48
  to ascertain the profit on the Goods Account without actually taking stock, 267
Profit and Loss Account, 18
  arrangement of, 55
  connection between the Trial Balance, Profit and Loss Account, and Balance Sheet, 65
  definition of, 49
Profit and Loss Account, distinction between Profit and Loss Account and Balance Sheet, 70
  facts to be shown, 50
  in investigations, 333
  percentage statements, 334, 335
  should contain all the profits and all the charges, 51
Profit and Loss Appropriation Account, 56
Promissory notes, 149
Purchases Ledger, 26
Purchases Ledger Abstract, method of preparing, 33

Railway waggons, hire-purchase system of acquiring, 324
Rates of local authorities, 310
Raw material, how valued at stock-taking, 53
Real Accounts, 105, 106
Realisation Account, 130
Receipts and payments, statement of, 133
Reconciliation statements, 345
Redemption fund, 120
  colliery, 128
Redemption of leases, 322
Register of members of joint-stock company, 235
Register of transfers for joint-stock company, 235
Rent, treatment of, when outstanding at close of year, 17
Repairs, treatment of, in preparing percentage statements, 336
Reserves and reserve funds, definition, 118
Reserves, secret, 119
Rest, 119
Return, Income Tax, preparation of, 306
Revenue Account, 132

Scroll-books, use of, not recommended, 22
Secret reserves, 119
Secured liability, 68
Self-balancing Ledgers, 33, 109
Shareholders' Ledger, 235
  card system applied to, 115
Shop establishment charges, 265
Single entry, definition of, 42
  method of ascertaining net profit, 43
  to pass from single to double entry, 45
Sinking funds, 121

Sinking funds, colliery, 128
debenture bond, 122
Statement of Affairs, definition, 82
of a bankrupt, 83
Statement of Receipts and Payments, 133
Stock-taking, 52
Stock used for capital, 69
Surplus applied to a reserve, 119
Suspense Accounts, 134

Tables for finding the days between two given dates, 369
days as decimals of a year, 373
logarithms, 376
Tax, income, 302
Trading Account, as first section of Profit and Loss Account, 55
Trading Account, definition, 59
Trial Balance, connection between the Trial Balance, Profit and Loss Account, and Balance Sheet, 65
of books kept by single entry, 45
definition, 63
two methods of preparing, 64
Trust and Executry Accounts, 175
Trust transactions, model set of, 176

United States currency, 280

Wages, 17
Wages of management, 47
Wasting assets, 67

PRINTED BY WILLIAM GREEN AND SONS, EDINBURGH.